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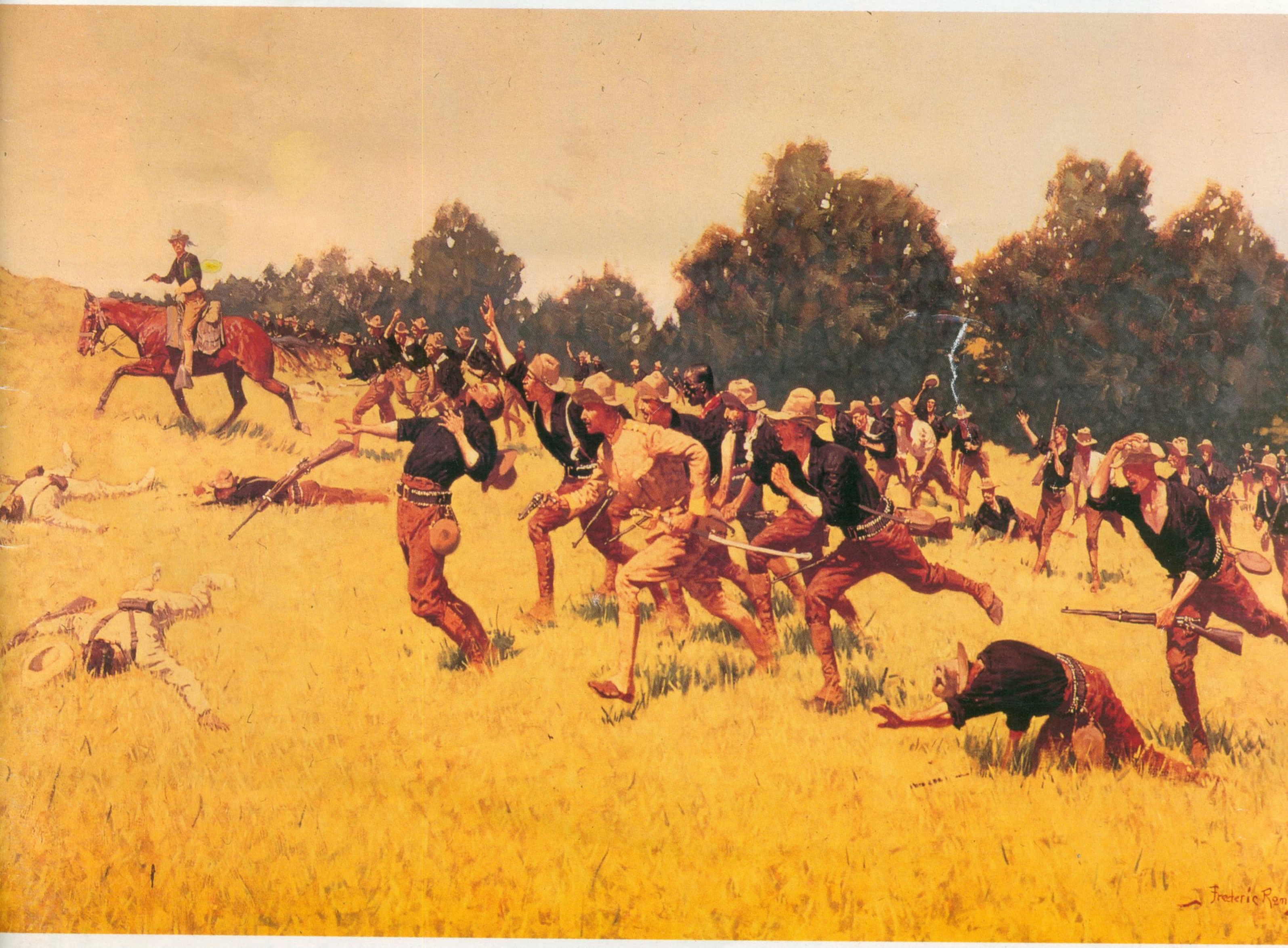
Precision SHOOTING

Dealing exclusively with the topic of extreme rifle accuracy



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FREDERIC REMINGTON, 1898

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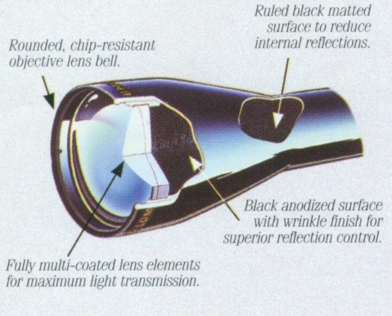
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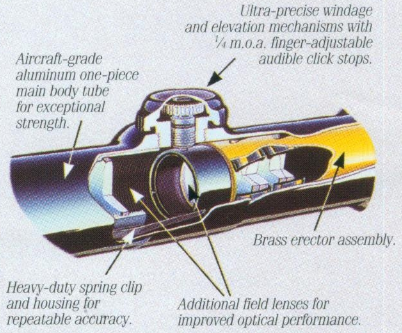
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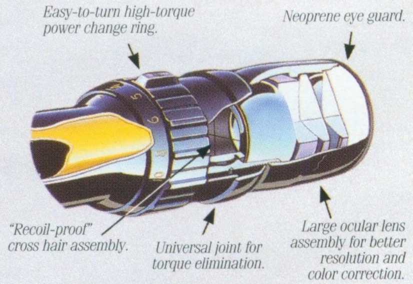
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EDITORIAL

In his book, Flexner writes of a very human moment in Washington's life that influenced a pivotal moment in our country's history. In late winter of 1783, the commander in chief was in camp in Newburgh, N.Y., with his army. After eight years of fighting in the Revolution, the army was on the verge of mutiny. Ill-equipped and poorly fed, often unpaid, and jerked this way and that by Congress, the soldiers were becoming rebellious enough to seize control from the quarreling civilian leaders.

Washington refused to ride this revolt to a throne, as he might have, but when the commander-in-chief desperately called a meeting of his officers on March 15, 1783, it was far from certain that he could influence them. They felt that they had endured too much.

Washington's speech made little impact, as he asked the soldiers to give the new government time to find its way and become effective. His prepared text exhausted, he groped for something else to say, another chance to turn the tide, and he thought of a reassuring letter from a congressman that he had in his jacket pocket. He pulled out the letter, then stopped abruptly, staring at the paper, unable to continue. His soldiers sat up, concern on their faces – what was wrong with the warrior chief who had led them for so long, through such trying times?

Flexner wrote, "Washington pulled from his pocket something only his intimates had seen him wear: a pair of eyeglasses."

"Gentlemen," he said, "you will permit me to put on my spectacles, for I have not only grown gray but almost blind in the service of my country."

That simple symbol of the great man's mortality did what his previous words had failed to do. According to Flexner, "The hardened soldiers wept." The rebellion died there, and "Washington had saved the United States from tyranny and civil discord.."

Book Review by Richard Tambling
Journal-Inquirer (Manchester, CT)
"Washington: The Indispensable Man"
by James Thomas Flexner.

The Precision Shooting Book Club is alive and well... which is quite a bit more than could be said for the Manchester, Connecticut office staff for a while there. The avalanche of orders caused us to reorder twice from the printer (who fortunately had printed a second edition, after yours truly told them that if they did not reprint a book that sold out its first edition in less than 60 days... then the corporate president and the janitor should immediately swap jobs). Other results from the little venture included adding a third staff member (Heather Johnson). A person in a neighboring office poked her head in our door and remarked "Business must be booming here... all we hear is your phone ringing". We weakly told her... "You're hired... come on in... and close the door after you".

We will not have a Book Club selection this month, because we announce the availability of the **Precision Shooting Reloading Guide** in this issue, on pages 00 and 00. Almost all the writers are well known to the Precision Shooting readers, and we find ourselves rather pleased with the fruits of our labor, if we do say so ourselves. But we have our second Book Club selection in adequate (we think)

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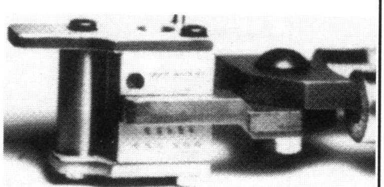

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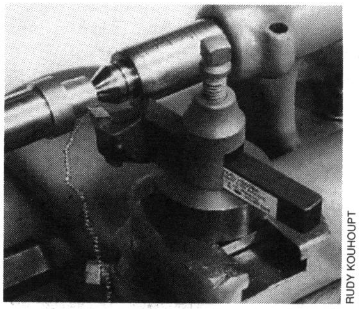

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EDITORIAL

Continued

inventory, and we will be back on track next month (well, as much as it is possible for us to be "on track").

Tony Boyer is still... Tony Boyer. We left the Super Shoot after three days of shooting, with a final day (200 yards, heavy varmint class) still to go... for no better reason than we had a million things to do back in Connecticut. At the time we left, Tony was walking about, with the brooding countenance that is sort of his trademark, and talking darkly about how this just may be his last year of competitive shooting, because when one's skills have diminished beyond a certain point, it's wise to quit before one's peers begin laughing at you. When Dick Maretzo called me on Memorial Day... we learned that Tony Boyer had won the Super Shoot. While we had not checked the score board to see exactly where Tony was situated in the standings... from listening to his unhappy comments... we were guessing that he was not in the top half of the shooters on the grounds. It's good to see that some things just don't change over the years... and Tony is one of them.

Super Shoot. It was a typical performance by you-know-who. We arrived completely discombobulated, with no time for practice or loading... with our highest aspiration for the four days being the hope that we had brought the correct cases for the rifles that accompanied me... a seemingly simple enough matter that I somehow flunked when I showed up at the Hickory Egg Shoot a month before. Well, no need to brood over the past... that's water under the bridge, as the saying goes. To our surprise, and the surprise of our friends, the Fates were kind, and the cartridge cases and the rifles fit just fine. Of course when I started loading on the first day of record shooting I found that I had somehow managed to grab 1,000 Euber boat-tail bullets instead of 1,000 Euber flat base bullets... and while the cases fit the rifle... the bullets didn't really do that great a job of fitting the cases. So, on opening day, to say it kindly, we sort of sprayed our shots around just a bit. The following day we switched over to some Hollister flat base bullets that we had brought along for no clear purpose, and elected to see just what they might turn up for the two hundred yard stage. After a so-so .615 warmup target, we followed with a .505 and a .353... and suddenly the birds were singing... God's in His heaven... all's right with the world. We found ourselves sitting at our reloading area, idly wondering if we should hang the 200 yard aggregate winner plaque at home... or perhaps hang it in the PS office. Surely they will want some sort of an acceptance speech... probably will insist on it... maybe I should start framing a few modest words now... there will be so many friends thronging me later... there will be no time for thinking then. What does one do under such circumstances, anyway? *I could, I suppose, open both arms... and then bless the multitude. But that does not really seem to be a good idea... with my luck the crowd would start sending up sick people to be cured, or something like that... nope, better avoid anything with religious overtones.*

We must confess that we were so busy preparing our little victory ceremony (*a blare of trumpets would be nice... and a flower girl is always well received*) that we failed to note that it was now pouring cats and dogs out there. When we went to the firing line for our third record group... everybody else was morosely noting that the wind was now blowing directly at the shooter in general... and at

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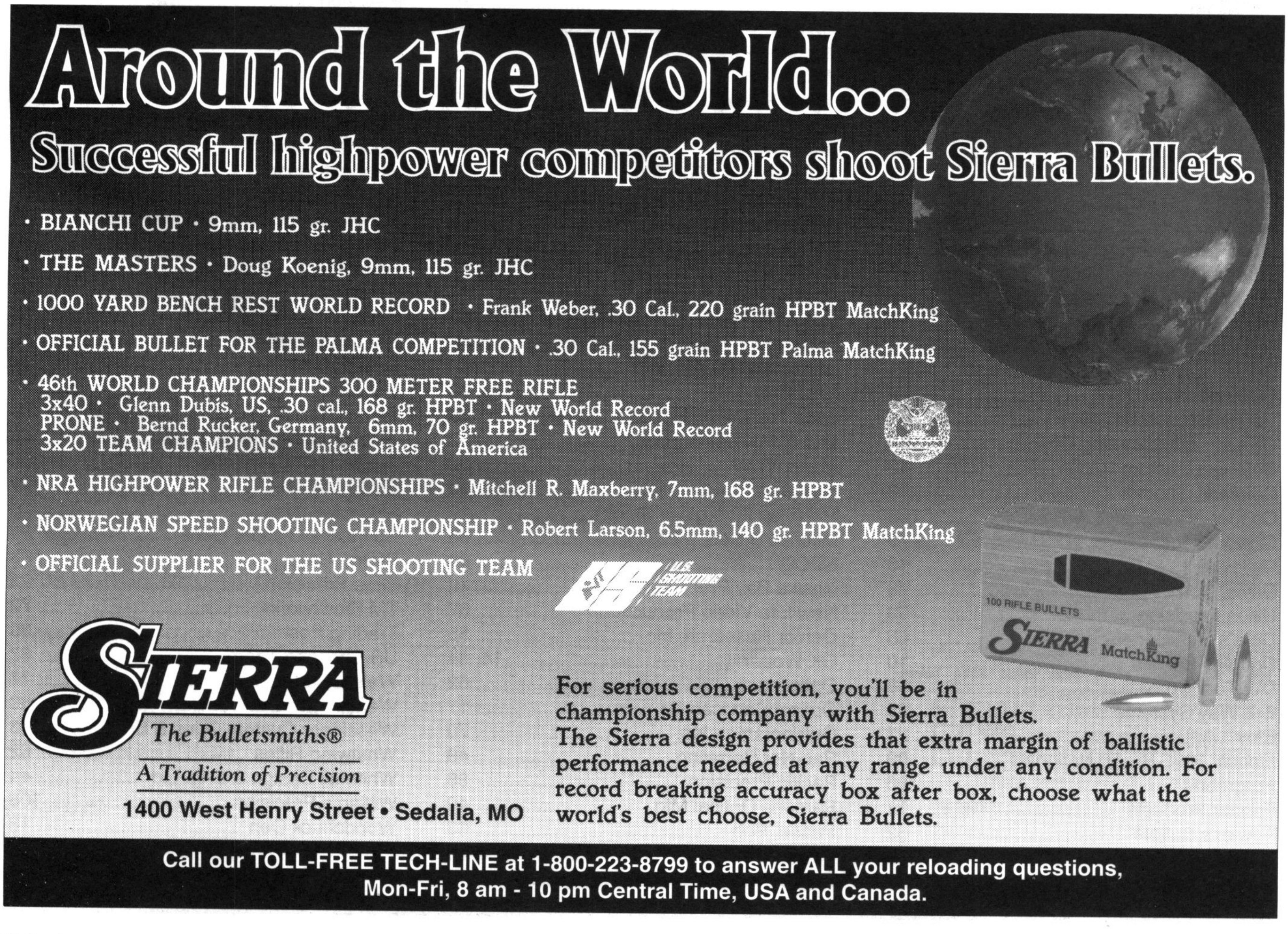

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EDITORIAL

Continued

the rifle muzzles in particular. I was meanwhile still furiously composing my victory speech (a little humor always shows the audience that you are still, at heart, a man-of-the-people. Let's see... what... repeatable... jokes have I heard lately? Maybe one of the old classics... let me think... confound it, I can remember the punch line... "And the bartender said, 'Hey, that's not a duck!'"... but confound it, what goes ahead of that? Maybe I should forget the humor approach... religion's out... now humor is ruled out... what's left, for Pete's sake? I'm not all that great a singer... it doesn't look like a Shakespeare-loving crowd to me... think, man, think...)

Naturally enough (for me, anyway) the next three record groups could only be politely called... bummers. Thereby doing away with the victory-speech-quandary, of course. Each group had a shot go straight up... or straight down. And not just a little straight up or straight down... make that *a lot* straight up or straight down.

The next day we were disconsolately wandering about with our six targets, and asking shooters judged to be knowledgeable in such matters just what had gone wrong, and changed glorious victory into a-public-laughingstock (again). We asked eleven shooter's opinions. For the record:

Five of them said, "Wow, did your scope ever go south on you, huh!"

Five of them said, "Water in the muzzle. That rain was driving right into our face. Those are rain shots, pure and simple".

And one said... "It's not scope, and it's not rain. It's you, ya nitwit".

I personally feel that the other ten opinions were the more scholarly... Don't you?

– ERRATA –

In an article in our May issue, our writer commented that he wished that Time Precision Inc. (640 Federal Road, Brookfield, CT 06804) would offer their rimfire action for sale as an "action only". In a letter to the Editor, dated May 3rd, Art Cocchia, President of Time Precision, Inc., advised: "The Time Precision .22 rimfire action HAS been available for sale as a separate item for over a year. Also, although we offer our .22 rimfire rifle in a package, it is (and always has been) available completely customized to the customers specifications as are all our rifles. We are a custom manufacturer. Our brochure clearly states this. Thank you for clearing this up".

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LEFT THE RANGE

The sport of Benchrest as well as the experimental aspect of Precision Shooting magazine has lost a friend and devotee. On the evening of May 16, 1995 **Geza Nagy** succumbed to a long term illness and departed from this world.

I remember Geza as a fierce competitor but also as someone who was never satisfied with rifle accuracy as it was. He constantly sought to improve the potential for accuracy in benchrest guns with his testing, experimenting and dedication to pinpointing the cause of inaccuracy.

I met Geza about 1970 when I handled the transaction whereby he acquired a 40X BR 6X47 Cal. rifle. He was instrumental in forming the Englishtown Benchrest Shooters Association and running the matches held on that range. Geza felt an obligation to see that the events there were put on with an efficiency equal to the larger more prestigious ranges of the time. When it came time to construct a moving backer system or to create a cover for the firing line Geza stepped forward and offered his services and those of the auto body shop he ran along with his brother Joe.

Throughout his period of involvement in benchrest Geza was always a giving person. He was quick to help a young person just coming into the game and even extended his offer of assistance to Lou Palmisano with cartridge case testing and development for the PPC. It never seemed to occur to Geza to seek financial gain from his skills or expertise. He only seemed dedicated to advancing benchrest knowledge, bringing new shooters into the sport and expanding the horizons of the benchrest discipline he grew to love so much.

Farewell old friend. You will be missed whenever those who were privileged to know you gather to make tiny groups. I hope there is a range for you in the after life where you can peacefully shoot those one holers you always sought while you were with us.

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COVER PHOTO

"The tragic impact of war finally enveloped Remington in 1898 with the declaration of war on Spain. Cuba provided his chance for experience in the field, his chance to observe what, in his opinion, men were meant to do — lend their lives to determine the destiny of nations. However the realities of brutal confrontation and misery were so real as to tear at the fabric of his notion of the ideal soldier. Two large paintings resulted from the experience. One of them, *Scream of Shrapnel at San Juan Hill,* Cuba portrays the random horror of an artillery shower.

The second major painting that resulted from the Cuban experience, *Charge of the Rough Riders at San Juan Hill* is a statement of heroic courage: Roosevelt in the vanguard is the emblem of solitary resolve and leadership. The cry of battle and the thunder of the charge, albeit not a cavalry charge, were frozen in a moment of time".

Frederic Remington - The Masterworks
Shapiro and Hassrick, 1988

The life of cowboys, Indians, and soldiers will be forever captured in the works of Frederic Sackrider Remington. Born October 4, 1861 in Canton, New York, Remington made his first trip west when he was nineteen years old. He would continue to make journeys west for the rest of his short forty-eight year life, gathering information, photographs, artifacts, and making sketches. Remington began his art career as an illustrator for magazines such as *Harper's Weekly* and *Collier's,* providing people in the East a glimpse of what life was like in the Wild West. As his career blossomed, he was sent to other locales to record the events of the day such as the Spanish-American War in Cuba and the life of the North-West Mounted police in Canada. While supporting himself as an illustrator, Remington began to paint in an effort to be accepted by his colleagues as a fine artist. Paintings such as *The Charge of the Rough Riders at San Juan Hill, End of the Day,* and *The Sun Dance* are just a few examples of the hundreds of images Remington created with both western and Northern New York themes. Of all the media in which he worked, Remington felt he would "endure in bronze," creating twenty-two sculptures from 1895 until his death in 1909. His sculptures include: the *Broncho Buster, Rattlesnake, Mountain Man, and Coming Through The Rye.*

Today, the works of Frederic Remington can be found in private collections and in museums across the country. The only museum solely devoted to the life and works of Remington is found in the area of the country which inspired many of his non-western images. The Frederic Remington Art Museum in Ogdensburg, New York, formally began after the death of Remington's wife, Eva, in 1923.

Information provided by: Frederic Remington Art Museum; 303 Washington Street; Ogdensburg, New York 13669; 315/393-2425, FAX 315/393-4464.

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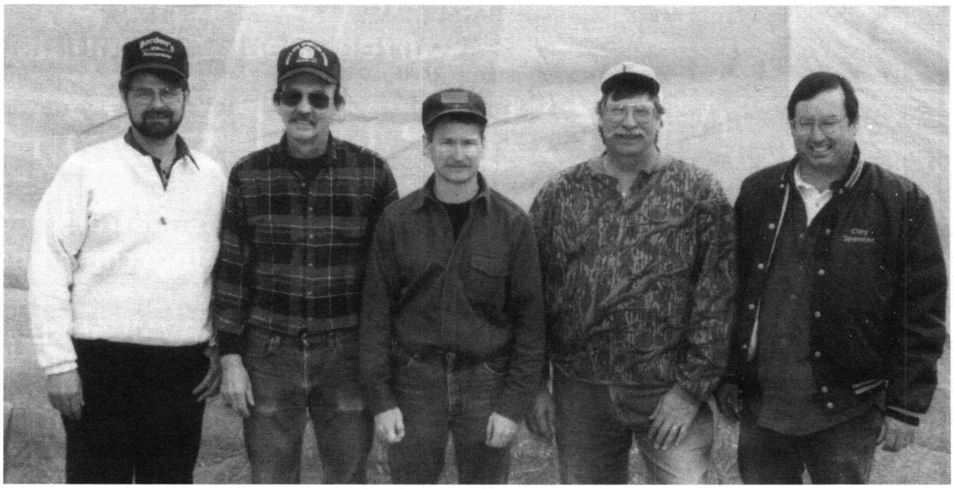
The 1995 Hickory Egg Shoot

THE CELEBRATED EGG SHOOT
of Hickory, North Carolina

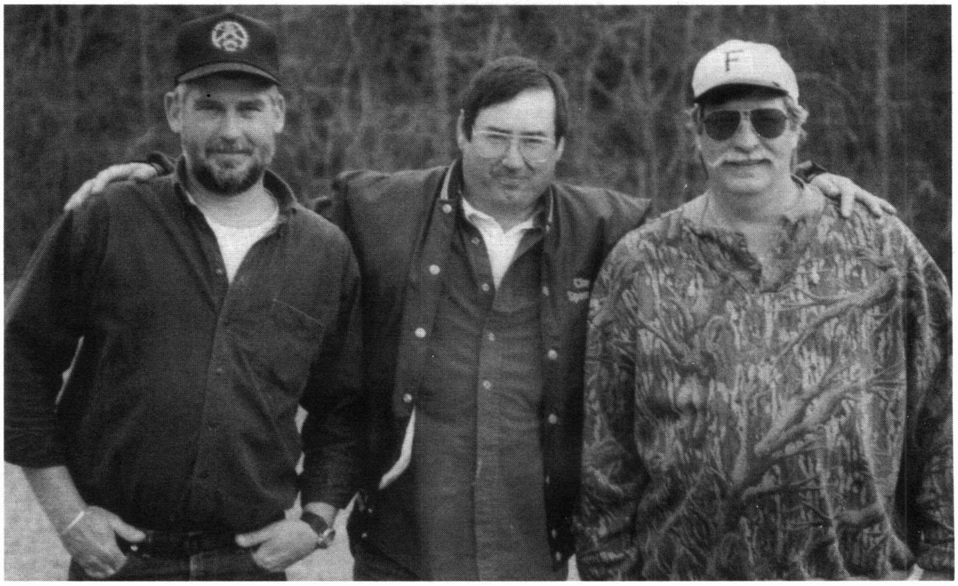
by Henry L. Ford

This year's Egg Shoot was the 15th, so it's not a new-fangled idea. All of the Egg Shoots to date have been sponsored by Larry Willis, of Bull's Eye Sporting Goods. When Larry held the very first groundhog and egg shoot, he tried to make this match, as much as possible, just like a "real" varmint hunt...a true test of the hunter, and his equipment. Here in North Carolina and Virginia, when we are varmint shooting, when we spot a crow or groundhog, we use the ground, a rifle sling, log, stump, fence post, bipod, or whatever is handy, to rest our rifle on, and prepare for taking a shot. Our first shot is most cases is our only shot, so it is important that we know beforehand the correct sight setting for any range that we are likely to be trying a shot at. This match was set up to mirror a typical day in the fields for a varmint shooter. The essence of the match is to test the hunter's ability to hit his or her target.

Readers of Precision Shooting over the past few years have perhaps read my write-ups on the two year's preceding matches. It is an interesting and possibly unique match. The first phase of the match is the groundhog portion of the event. The shooter, firing from the prone position, gets three shots at a groundhog target at 100 yards...then three shots at 300 yards...followed by three shots at 500 yards. With those nine shots now history, it's on to the egg phase...an event in which you are not likely to burn out your rifle barrel...because you get one shot...period...at an egg at 500 yards. There are no sighting shots allowed on match day, so it behooves one to know his or her sight settings for the three ranges...like, exactly.



WINNERS OF THE 1995 GROUND HOG SHOOT
From left to right: 1st place, Jim Borden; 2nd place, Kenny McCrary; Tied 4th & 5th, Ed Caldwell; Tied 4th place, Allen Arnette; Tied 5th place, Clay Spencer.



THE BENCHREST TEAM
Shown from left to right: Bob Seiler, Clay Spencer and Allen Arnette.

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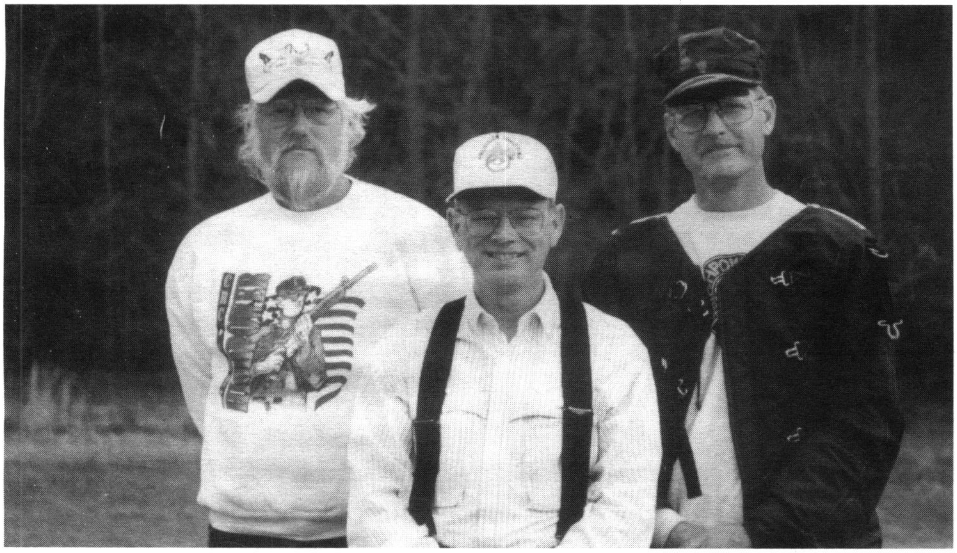

THE HIGH POWER RIFLE TEAM
Shown from left to right: John Rea, Frank Randall and Jim Spencer.

WINNERS OF THE 1995 EGG SHOOT
Nine out of one hundred seven entries broke the egg with one shot at 500 yards. From left to right they are: Matt Cass, Roger Phillips, James Fox, Jeremy Queen, Tina Searcy, Sam Grier, Frank Randall, Mathew Abernathy, and Jethro Waters. Three of these are very young competitors! All have good reason to smile.

For reasons known but to the ages, the match caught the attention and the interest of the Precision Shooting Editor...who seemed to feel that this was as good a test of practical in-the-field marksmanship as he had ever encountered. By a process of bullying, pleading, threatening and whatever else editors do to keep their writers in some semblance of order, Dave got several groups of shooters from the highpower and benchrest shooting worlds all moving toward Hickory, North Carolina for the April 1st match. Last year's entry list showed 86 entrants, and we thought that was pretty darn good. This year, with you-know-who babbling away in these pages...questioning the ability of this discipline to hit the broad side of a barn in a practical field test... questioning the virility of that discipline... suggesting that discipline A was so much more advanced than discipline B that, really, it was an embarrassment...but then commenting that unfortunately discipline A only shot on underground tunnel ranges, and they'd probably go to pieces when faced with alien sights such as a blue sky, and green grass...well, anyway, when you-know-who got through talkin' away, 174 shooters

Continued on next page

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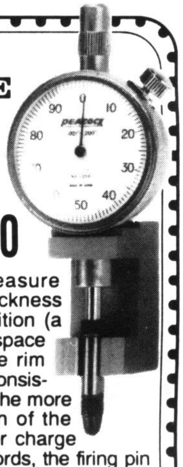

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THE CELEBRATED EGG SHOOT

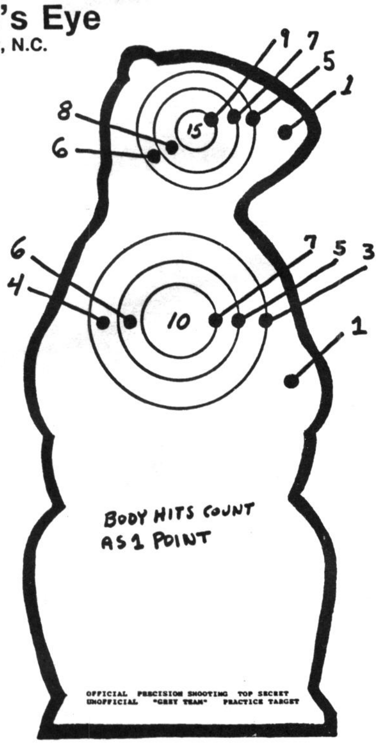
Continued

THE 15TH ANNUAL - 1995 - GROUNDHOG AND EGG SHOOT.
The working crew who did all the work scoring, keeping the records and serving at the concession stand. From left to right: Kindra Airrwood, Tommy Bradshaw, Patti Wetherford, Official Scorer - Larry Waters, Ben Robinson, Mounted Ground Hog, Amy Stewart, Carla Cragg, Lesia Norman, Diana Willis and Susan Alford. Not shown in the picture: Jason Willis and Range Officer - Joe Craig who were busy at that time.

showed up for the match, all determined to show the world-in-general, and a big mouthed editor in particular, a thing or two about just who was the cock of the walk around here. Poor Larry Willis was morosely watching the entrance, with cars and trucks coming through in a line, some with license plates from places that we had never even heard of (i.e., north of the Mason-Dixon line). Not only that, but many of these fellows talked funny, and it was hard to understand what they were saying. (We consoled ourselves with the thought that it probably was nothing important anyway). Once we discovered that several of the Northern Virginia fellows could understand half way well what they were saying, we assigned them as floating interpreters, and that helped a lot. As the day went on, many of us began to understand and recognize words in our visitor's vocabulary...words like..."hamburger"... "water"... "hungry" ... "you're standing on my foot"... "do you people still shoot Revenuers down here?"... "!?*!@$ mirage"... and "!?*!@$ wind". While the area is far from illiterate, we did learn several new adjectives that apparently our visitors regularly use immediately preceding the words "wind", "mirage", and "complete miss". There were a couple of shooters here from Mississippi that neither side could understand...so we just nodded agreement to whatever they were saying...meanwhile vaguely wondering what it was that we were assenting to. Well, so much of chit-chat, on to the match itself.

Hmmm, maybe one more comment. On Sunday, March 26th I received a phone call from Dan Bessie, of Lansing, Michigan, who said "We're in Hickory for the Groundhog and Egg Shoot." My heart sank, as I thought the poor fellow had his weekends mixed up. Turned out that he was in the area on vacation, and merely wanted to know when the range would be open for practice. (It's open the entire week before the match). Later, at the actual match, Dan Bessie received

Bull's Eye
Hickory, N.C.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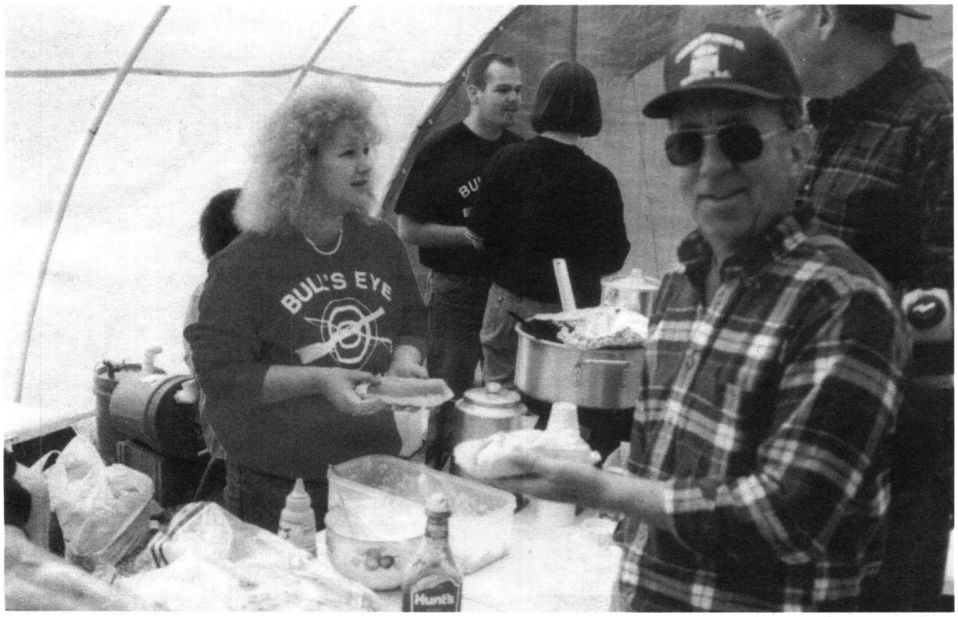

CONCESSION STAND
Lesia Norman serving a hot dog to Dan Oswalt. In the background is Jason Willis talking to Susan Alfor.

a prize for "furthest distance traveled".

The reader who is not familiar with the scoring at Hickory is quickly filled in with the following: There are two bullseyes and corresponding circular rings on the groundhog target. The "head" bullseye, which is the smaller of the two, has a center bullseye value of 15...thus it is possible to pick up 45 points (via one's three shots) if one "cleans the yardage". The "body" bullseye is the larger of the two, but has a center bullseye value of only 10...thus 30 points is the best that can be had by "cleaning" a yardage if one elects to fire on the body bullseye.

At 8 o'clock Joe Craig, the Range Officer, called the first relay (there are six shooters to a relay, and you have three minutes-flat- no more, and no less, for your relay's allotted time) to the firing line. From there on, with 29 relays notwithstanding, the day moved like clockwork. All firing was done, and awards ceremony finished by 4:00 PM...so obviously Mr. Craig knows how to run a rifle match.

The Yardage winners for the groundhog match were:

100 Yards:	Larry Anderson	45
	Allen Arnette	45
	Keith Earwood	45
	Jim Borden	45
300 Yards:	Mark Reese	25
500 Yards:	Tina Searcy	23

The groundhog shoot top scorers were:

1.)	Jim Borden	71
2.)	Kenny McCrary	67
3.)	Keith Robertson	66
4 Tie)	Allen Arnette	65
4 Tie)	Ed Caldwell	65
5 Tie)	Clay Spencer	62
5 Tie)	Ed Caldwell	62
6 Tie)	Tina Searcy	60
6 Tie)	Timmy McNeilly	60
7.)	Chuck Bass	59
8 Tie)	Don Ballasch	58
8 Tie)	Mark Reese	58

In the "3 Shooter Team Competition", where Precision Shooting fielded a number of teams (good gravy, there was the Benchrest Team, the Highpower Team, the Stealth Team, the Columnist Team,

Continued on next page

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THE CELEBRATED EGG SHOOT

Continued

Kim Hullander on the firing line.

A six person relay on the firing line.

and I thought there was a Totally Unhinged Team, but they seem to have gotten lost in the shuffle)...a local shooter team...Ed Caldwell, Bill Cody, and Keith Earwood...had won all the marbles, followed by Clay Spencer's team...and then everyone else was "way back there". The victory of the local shooter's team was enthusiastically received by the gathering...who also graciously gave Jim Borden a rousing round of applause for his overall victory (with a 6 PPC, yet!) Local shooter Kenny McCray, who finished second, certainly made Jim Borden earn his victory, and actually outshot him at the two longer distances, but Jim's "clean" 45 at 100 yards just plain got him off to too good a start! In the winner-take-all, open-to-anyone-and-his-brother three member team match, The North Carolina 1000 Yard Benchrest Team carried off the honors (Chuck Bass, Ed Caldwell, and Bill Shehane)...whereupon they were immediately (as I hear it) made PS columnists, and the PS Editor began talking about "our" victory in this event. Tina Searcy, a local lady from Hickory, North Carolina was to win the 500 yard stage against all comers, and PS Photographer Don Ballasch proceeded to use up a roll of film taking pictures of the lady and her rifle, while mumbling something about..."at last, a photogenic one!".

Following the groundhog shoot, the Range Master called the 107 entrants in the Egg Shoot to the firing line...for their one shot at an egg, sitting lonely and forlorn out there at the 500 yard mark. And at the end of the relay, nine shooters would have their names engraved on the Egg Trophy for the 1995 match. That's eight per cent of the entrants, and that's not bad at all! And Roger Phillips can now attest to the adage "Never give up". Roger missed the groundhog target with all nine shots...but I would have to think that the pleasure of watching that egg flat-out-disappear when he fired his one shot at 500 yards had to make up for a lot! The nine successful egg-beaters were: Matt Cass, Roger Phillips, James Fox, Jeremy Queen, Tina Searcy, Sam Grier, Frank Randall, Matthew Abernathy, and Jethro Waters. Our congratulations to this august and distinguished group!

In the closing ceremony Larry Willis handed out a number of prizes to the top shooters. Jim Borden won a new Remington Model 700 .22-250 rifle for his efforts, while Kenny McCrary, who placed second for the day, carried off a new Ruger 10/22. Many more nice prizes were awarded as well.

We look forward to next year, and seeing many of our friends from Precision Shooting down here again. Even if we did have some trouble understanding just what you were saying. (Editor: Don't worry about it. We said nothing important the whole weekend anyway).

Henry L. Ford

(All photos courtesy of Don Ballasch and Dick Maretzo).

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The 1995 Hickory Egg Shoot

Precision Shooting Stealth Team Infiltrates Hickory, N.C.

by

John Feamster

The Stealth Team (L to R): John Feamster, Don Ballasch, and Dr. Richard Maretzo Jr. The latter is not the famous Dr. Maretzo.

Henry Ford's accounts of the annual Hickory, N.C. Groundhog and Egg Shoot (Precision Shooting, Aug. 1993/Aug. 1994) have attracted no small amount of attention among the staff and subscribers of this magazine. PS Editor Dave Brennan adopted this match as his personal crusade and did his best to whip potential participants into a frenzy, with several editorials putting the various competitive disciplines against each other in a "Let's you and him fight" sort of vein. I personally got dragged into this mess shortly after the editor appointed Clay Spencer captain of the PS Blue (Benchrest) Team, and Frank Randall captain of the PS Red (Highpower) Team, to duke it out on the fields of honor at Hickory for the amusement of the masses (Editor: I rather like that little phrase, John... "...for the amusement of the masses". There were so many of them rolling around on the ground, weak with laughter, that I have to feel that we accomplished our primary objective for the weekend... namely to give the people of Hickory something to laugh at). Don Ballasch, PS columnist/photographer, apparently took umbrage at being left out of the picture (Editor: He was "left out of the picture" at the specific request of the Governor of North Carolina, and the Hickory Police Department. I seem to recall that the North Carolina National Guard called me on the Ballasch matter as well.), and decided to form a PS Top Secret Grey Team, with the avowed intent of going to Hickory and showing the editor a thing or two. (As we later learned, "showing folks a thing or two" can be either good or bad...) Never one to take half-measures, Don immediately called David Tubb, who allowed that the match certainly did sound interesting and yes, he'd be happy to be on the Grey Team - if some larger match didn't conflict. Having nailed down one of the big guns of the competitive shooting world, Don then found himself casting about for a third team member (Editor: Meanwhile David Tubb was running around, trying to arrange an incapacitating injury for Don on the match weekend, so that the team might have a prayer of a chance).

And so it was that I received a call from Don, who was gleeful at the prospect of the ensuing mayhem, in which we would presumably smoke the Editor's chosen and rise to lasting glory (Editor: The lasting glory would have been presumably over at Good Housekeeping Magazine... or maybe at Better Homes and Gardens... right?). I tactfully avoided a display of pique at having been invited AFTER David Tubb - obviously, it must have been a simple oversight on Don's part - right? (Editor: Absolutely...) My reply went something like this: "Let me see, here... You have a team designed to sneak up on the Editor... and on that team is David Tubb... and you have to ASK whether I want to join??? HELL, YES! COUNT ME IN!" (Editor: I don't seem to have that old "unwavering devotion" from the columnists that I used to have). We all agreed to the utmost secrecy in our endeavor, in order to best insure complete surprise and consternation upon our arrival at Hickory. I privately relished the thought of the dumfounded look that was sure to grace Dave Brennan's visage upon the newly-christened Stealth Team's debut . (Editor: I would simply have ignored you, while feigning total lack of recognition. This after I called Stella, and canceled your subscriptions - without refund, and called Kim and told her to remove all three of you characters from the columnist listing). To Don's credit, he did manage to keep the secret for several weeks before blurting it out to the editor. (So much for stealth!). (Editor: The truth be told, he blurted it out the next day).

Amid a flurry of letters and phone calls outlining strategy (Editor: Strategy? Strategy? Are we possibly getting a little pretentious around here? I knew all of you guys when you simply would go off to a rifle match. Now you have to formulate a *strategy* first?), the realization that I was under-equipped for this type of competition began to set in. The closest thing I had was an accurized .223 Remington 700 Varmint which I'd used with some success at groundhog hunting in Tennessee (Precision Shooting, Jan. 1994, p. 60). While easily grouping in the 3's for 3-shot groups with Berger 52s and H-335, this rifle was by no means ideal, ballistically, for the challenge at hand. This match would be the catalyst required to start me building the long-range varmint I'd been wanting for some time. After due consideration, I settled on a 6mm Ackley Improved set up for Berger 105 gr. VLD bullets. Unfortunately, as I began to explore the matter with a couple of benchrest gunsmiths, reality again reared its ugly head. (Editor: You're

The Target Crew were mounted on ATV's and generally speaking drove like men 'possessed".

not going to get a lot of "reality" experience hanging around with Don Ballasch). Most would require a minimum of 6-9 months to build a rifle. In addition, the current lag time involved in obtaining a McMillan stock would further complicate matters. Along about early Jan. 1995, I was seriously considering stepping down from the Stealth Team for lack of a suitable rifle, when I made the acquaintance of Mickey Coleman, a riflesmith who lives in Selma, Alabama. Mickey competes in benchrest matches and reported he'd done well at the Super Shoot with a rifle he'd built, which piqued my interest. After examining several samples of his work, I asked him to build one for me. He had by this time taken an interest in the Stealth project (Editor: Stella, cancel the Coleman subscription when you're at it, please.), and agreed to expedite the rifle. A man of his word, he worked extremely hard to have my 6 Ackley ready in time for the egg shoot, now less than 3 months away. He showed me one rifle he had built using an H-S Precision Tactical stock with an adjustable cheekpiece and buttplate. These were both features which I had decided to employ on the 6 Ackley, and I liked the stock. As it happened, H-S Precision had recently introduced a Tactical stock with an integral bedding block inletted for the Winchester Post '64 Model 70 action I'd be using, and was quoting 30-day delivery. Marvelous! Even if they were off by a week or two, I'd have plenty of leeway to get the rifle built before the match (April 1st) - so accordingly, I placed my order with them on Jan. 12, 1995.

Mickey rush-ordered a stainless, double-buttoned 6mm match barrel from Douglas, with whom he has a good working relationship, specifying a #6 contour and 8" twist. We agreed to split the cost of the reamer, and he ordered this, also. He specified a tight neck for lightly neck-turned cases and a throat set up for 105 gr. Bergers using dummy rounds he'd prepared. I handed him a brand-new Winchester Model 70 Featherweight to tear down for the action, and did my best not to hover over him as the various components began trickling in from hither and yon. I fired off orders for Berger 95 gr. and 105 gr. VLDs, plus some bronze 6mm brushes, and located some powder and starting load data. Meanwhile, Don Ballasch was wrestling with a similar array of problems, working on several rebarreling projects in hopes of getting one ultra-long-range varmint rifle ready in time. David Tubb had, by this time, learned that the Chevy Sportsman's Team Challenge would conflict with the Hickory Groundhog shoot, and reluctantly bowed out. (I can't blame him... the $33,000.00 in prize money - which his team won, by the way - made it fiscally irresponsible to do otherwise!) (Editor: I respectfully disagree. Comes the time when the money's gone... he's going to be sitting at home, brooding over the fact that he now realizes that he should have gone to the Egg Shoot instead). Don began frenetically recruiting from a host of likely candidates, including sometimes - PS contributor Kent Miller, of .224 Longshot fame.

Unfortunately, as the Groundhog Match drew near, H-S Precision began reporting technical problems with bringing the new Model 70 Tactical stocks online. Thirty days became 6 weeks, which

Continued on next page

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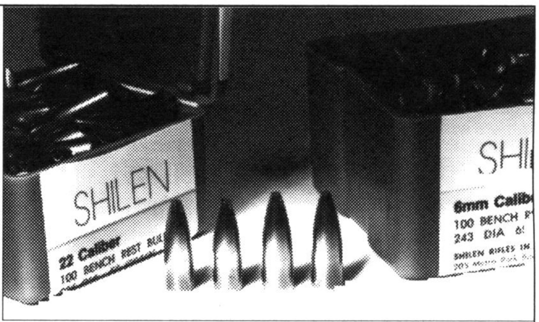

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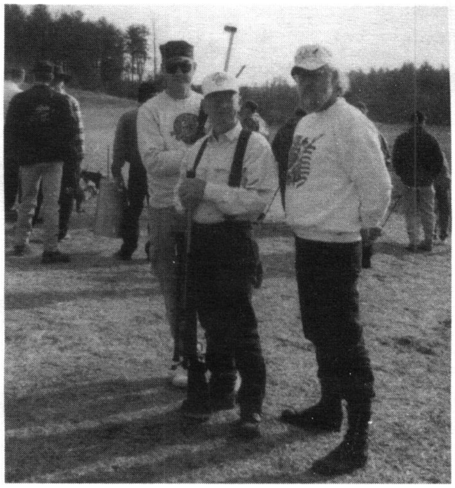
Precison Shooting Stealth Team Invades Hickory, N.C.

Continued

then became 8... and it became apparent that my new super-rifle wasn't going to happen in time for THIS year's match. (As of this writing, it's 100+ days, and still no UPS truck on the horizon). Mickey, not being one to give up without a fight, decided that Plan B would be to fit a 6mm Ackley Improved barrel to his own Stolle-actioned Unlimited benchrest rifle, for the ultimate in mini-howitzers. He obtained another 6mm stainless match barrel at his expense, and fitted it in record time. Our final delays were occasioned by discovering that the factory 6mm Ackley Improved dies would not size our turned case necks enough for adequate bullet tension, and then having to purchase and modify a Wilson 6mm Remington neck sizer to fit the 6 Ackley case. We got the rifle up and running, with cases fire-formed and preliminary chronograph data developed, with exactly one afternoon left for load development and zeroing prior to my leaving for Hickory. That day, I drove to Mickey's benchrest range in Greenville, Alabama and we tested some loads with the 95 gr. & 105 gr. Bergers, IMR 7828 and Federal Benchrest primers. Our results were encouraging, but we had occasional vertical fliers which were unsettling. We both agreed that magnum primers might help (we didn't have any with us, of course). In view of our lack of time to refine loads and obtain 100, 300 and 500 yard zeros, we reluctantly admitted defeat and shelved the 6 Ackley project for this year's match.


PS Staffer Frank Randall (in suspenders) discusses strategy with his team-mates. After a disappointing day in the Groundhog competition, Mrs. Randall's son Frank blew that Egg all to hell-and-gone with one shot... and things turned into A Great Day.

On to Plan C. I still had my tuned .223 700 Varmint, and earlier, Mickey had lent me one of his personal varmint rifles as a backup. This was a Remington 700 action to which he had fitted a Douglas stainless 9" twist match barrel in .22-250. The barreled action rested in an H-S Precision stock, and had originally come to me with a 10x Leupold and ammunition loaded with 52 gr. benchrest bullets. While waiting for the 6 Ackley components to arrive, I had installed a 24x Leupold with a 1/2 MOA dot reticle which I'd used extensively in Silhouette shooting, and then developed a very accurate load using 69 gr. Sierra Matchkings, IMR 4064 and Federal Benchrest primers. This combination would buck the wind better than the little 52 gr. flatbase rounds.

After opting for Plan C, I now knew which rifles would actually be going to Hickory. Accordingly, I installed my 2 ScopLevels on these scopes. In doing so, I took great care to insure that the bubbles were centered when the vertical crosshairs were aligned with a plumb line. Henry Ford had mentioned that the Hickory range had "a slight slope" angling down from left to right , and I figured the ScopLevels would be just the ticket for eliminating cant. At the distances we'd be shooting, and given the very small size of the bullseye at 500 yards, even a slight cant could cost valuable points. As a final check, I took one last afternoon off from work and headed

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for the range. I verified excellent zeros at 100 and 300 yards, plus rough zeros at 500 yards, using the ScopLevels, before my daylight ran out. The ScopLevel's extended design made them very easy to use when in position, and a little prone practice with the Hart rest soon had me quite comfortable in checking the bubble just before firing.

Thus prepared, I set out on the 750-mile drive to Hickory armed with caffeine, books on tape, and mental pictures of neatly head-shot groundhog targets, exploding eggs and the Stealth team being cheered wildly by tumultuous throngs after our stellar victory. (Editor: Many of our columnists have their own dream worlds, to which they regularly retire when they can no longer handle reality. I can usually tell when one of them has stepped off into his little dream world... they will often suck their thumb, and clutch their blankets closer to them). The changing scenery was beautiful, becoming increasingly spectacular as I neared North Carolina. I arrived at Bulls Eye Sporting Goods at about 5:30 p.m., and asked a number of questions about the match format. I was relieved to learn that spotters were allowed to coach their shooters, and that it would be possible for team members to be squadded on successive relays. This meant that we could have one rifle rest on the line and shoot from one position, minimizing setup time. After checking out the reloading supplies, scopes and rifles, I headed off in search of the range, armed with Henry Ford's xeroxed map. I looked unsuccessfully for a couple of hours and enjoyed the handsome scenery before finally deciding to pack it in for the day.

P.S. Columnist: It's a dirty job, but *someone's* gotta do it...

Upon settling into my hotel room at 10:00 p.m., I immediately broke out my manuscript for the chapter on service rifle reloading which will appear in the upcoming Precision Shooting Reloading Guide. (Yes, folks, you heard it here first!) My task was to turn 70 pages of highly-edited hieroglyphics into something resembling English, so that the typesetter wouldn't go blind on my account. I'd been subtly assured by Dave Brennan - ever the harsh taskmaster - that I'd be in the PS doghouse if it weren't completed and in his hands by April 1 - match day. At midnight, our crazed Stealth team captain, Don Ballasch, appeared at my door, bubbling over with enthusiasm about his many, MANY ongoing rifle projects. I listened enough to know when to say "uh-huh" and uh-uh" appropriately, and continued scribbling furiously on auto-pilot. Finally, at 2:30 am, Don seemed to pause a bit, and I blearily, suggested we hit the sack in preparation for tomorrow's practice. Don, ever-indefatigable, chipperly suggested we get up at 0600 in order to hobnob with the other staffers (who presumably were getting an actual night's sleep). I vetoed this idea out of hand, and we settled on a more leisurely 0730.

My wake-up call came... and went. At the appointed hour of departure, I was awakened from the sleep of the dead by an insistent rapping at my chamber door. No raven... just Don, who kindly overlooked my slothful ways. We leaped into his van and careened across the countryside on a death-ride not unlike the European taxi trips made famous in Grade B chase flicks. None too soon, we reached the vicinity of the range; 2 inquiries for directions (Don's idea) later, we actually found the thing. Introductions were made all round among the PS contingent, and we set about the serious business of verifying our zeros. The Stealth team was short one member, as all of Don's Ohio recruits had faded away

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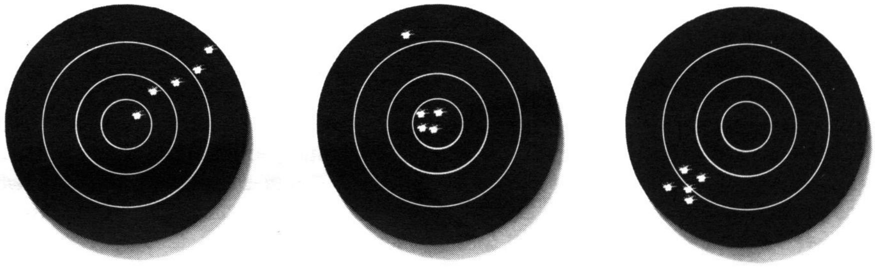

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Continued

A birds-eye view of the firing line... six shooters abreast... and three minutes flat allowed to the relay... so move right along, son.

at the last moment. Happily, however, we were able through copious mewling and groveling to dragoon Richard Maretzo Jr. into shooting on our team.

Don had constructed two platforms for Bald Eagle front rests which worked out very well for this type shooting. These were triangular in shape and incorporated a level and 3 coarse leveling screws. These allowed rapid adjustment to bring the rest parallel to the horizon. As we unlimbered our rifles, I set up my .223 700 Varmint, extended the ScopLevel, and adjusted the vertical crosshair using the TLAR method. (TLAR: "That Looks About Right"). This led to my first lesson of the day. In double-checking any ScopLevel, I was aghast to see that the bubble was way off-center. The orientation of the crosshairs looked fine, but the bubble was definitely off. I theorized that somehow the ScopLevel had been bumped out of alignment during my travels... until I uncased the .22-250 and found it to give identical readings! What Mr. Ford characterized as "a gentle slope from left to right" turned out to be very deceiving to this flatlander's eyes, and I wouldn't have realized just how much my perceptions would cause me to cant the rifle without the ScopLevel.

As we began to check our 100 yard zeros, I quickly got lesson #2: when shooting prone using powerful scopes, the mirage on this range was significant! My 6.5-20x and 24x Leupolds would not resolve the scoring rings on Don's (white) practice targets, which had been easy prey during previous practice sessions. I switched to darker targets and soon was pecking out the centers with both rifles. Don broke out his rifles; he'd finally opted to use a pair of 6 PPC's. He topped them both with Tasco 6-24x rangefinding scopes, having developed confidence in their repeatability during myriad groundhog hunting forays. His team rifle was a Kelbly - built benchrest rifle with which he'd done well in competition, and his second rifle was a factory Sako 6 PPC which also shot quite well. The young Dr. Maretzo was sharing a 6mm Ackley Improved with his father, Dr. Richard Maretzo Sr., and quickly found that he was in for a battering when firing his rifle prone, free-recoil. (It seems the scope's eye relief was set up a bit short for this style shooting). Never the less, he soldiered his way through the (literal) browbeating without flinching, more than once reaching for a Band-Aid to stem the flow of blood from small cuts inflicted by the rifle. (His stoicism did not go unnoticed!)

As the day progressed, we advanced to the 300 and 500 yard lines, refining our zeros and attempting to get a handle on conditions. In a word, they were wicked, especially given the tiny bullseyes out past 100 yards. Local shooters were free in sharing their experience and expertise on the range, and the atmosphere was relaxed, with lots of good-natured bantering all round. As the afternoon sun went down, the mirage began to dissipate, and I decided to verify my 100 yard zeros one last time, now that a more precise hold was possible. Lesson number 3 became apparent - both rifles now shot about 1.25" low at 100 yards, relative to their bright-light zeros! I pondered this latest development and filed it away for future reference. As we began to close down, I was joined by a longtime shooting buddy from Alabama, Joe Betterton, who had driven up for the match. We then headed back to the hotel and on to a truly excellent steak dinner.

Over supper, we were regaled by Jim Borden and the Maretzos with tales of a noted firearms journal's editor's legendary mechanical ineptitude. (This anonymous giant in the firearms press, who shall of course, remain anonymous, bore these tales gracefully, I will admit). (Editor: Thanks for reminding me. Stella, I'm afraid that I have two more subscriptions for you to cancel). Our roasting complete, we returned to the hotel. I began diligently transcribing the remainder of my manuscript, while the good Mssrs. Ballasch and Brennan lurched off to some quiet den to discuss weighty matters and mete out slow, calculating death to a libation or four. About midnight, Don showed up at my door, looking distinctly relaxed (Editor: I'm sorry about that, John. About that time I could barely keep my eyes open, and it was evident that Don still had a lot of things

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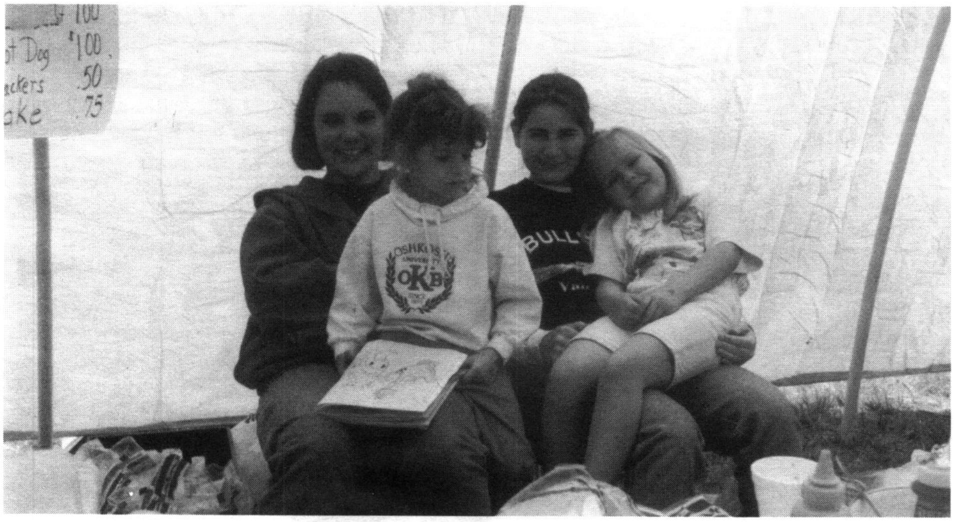

Some of the Hickory Younger Set appears to be exhausted from their efforts of the day.

too that needed to be talked out. You were so injudicious as to have a light showing in your motel room window... and Don was drawn to it like a moth to a flame. I meanwhile was nailing my motel door shut, from the inside with very large spikes.), and expressed amazement that I was still working. After his attempts to inveigle me into quitting failed, he dismissed me as being "no fun" and tottered off to parts unknown. When last heard from, he was engrossed in Audie Murphy's "To Hell and Back" on the late-late show and was drooling delightedly over the M-1s.

The Day of Reckoning Is At Hand...

Match day dawned, and at 0530 the morning air was crisp and fresh. As we loaded the vehicles, there was, surprisingly, no sign of Don Ballasch. I watched, awe-struck, as Dave Brennan's benchrest contingent flung a small mountain of gun cases, luggage, milk crates full of loading gear and other paraphernalia helter-skelter into the back of their mini-van. Still no Don. Could it be that Precision Shooting's own answer to the Energizer Bunny had finally run out of steam? I called his room, and an incoherent voice answered on the fourth ring. He mumbled something about "no wake-up call" and appeared in the parking lot in short order, looking only slightly more dead than alive. Another hell-ride to the range, and we were in line getting squadded for our date with destiny. Shortly thereafter, I was witness when a hapless member of the Brennan coterie (amazingly it was **not** the Editor) unsuspectingly opened the rear hatch of their van... while it was parked facing uphill. The rumble of the avalanche of extremely expensive benchrest rifles, scopes and assorted gear tumbling out was only briefly louder than the howl of anguish it elicited. We reassured the stricken victim (once we got him out from under all the stuff) that the rifle's zeros were preserved by their padded, hard cases during their brief but violent excursion, and began moving gear to the line. (Editor: While people were frantically digging the wretch out... "Hurry, before he smothers..." I wandered morosely over to the carnage... and startled the heck out of several of my friends... who had just presumed that it was me under the pile. It *is* the sort of thing that I do...).

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Continued

Jim Borden, at the awards ceremony, gets to carry off some of The Spoils of War.

As the match commenced, one thing became immediately apparent: Mr. Willis and staff had this thing down to a *science*. Each relay moved into position at light-speed, and there was no excess time whatsoever to fiddle about with rests or other gear. It was under these conditions that the true value of Don Ballasch's homemade rest platforms became apparent. Each relay had a maximum of 3 minutes to fire 3 shots, and as soon as the echo of the last round had faded and all rifles were verified safe and unloaded, shooters yanked their gear off the line and the target crew thundered hell-for-leather downrange on four-wheelers. They spent a few seconds changing targets, and then roared back at high speed. One interesting aspect of this operation was that shooters could observe the dust kicked up by the four-wheelers going down and back. This gave a clear picture of what the wind was doing the entire length of the range, like a giant, continuous wind flag, only a couple of minutes before each relay commenced firing!

I was first up on the Stealth team, and elected to use my .223 as my team rifle, due to my greater familiarity with it. As our relay was given the "fire" command, I noted the overcast conditions and remembered the shift in elevation zeros of the previous day. Accordingly, I waited until the other members of my relay had fired their first round, so I could observe their points of impact. As the first fusillade ended, a quick scan revealed what I'd suspected... most, if not all, shots were low. I then cranked my crosshairs to the top edge of the bullseye, and let drive. Ouch! My bullet impacted just under the edge of the head-shot center mothball. With my dreams of a perfect "45" at 100 yards now neatly out of the way, I held one scoring ring higher, checked the wind, and fired. My second round went well inside the center dot for 15 points, and so did my third, giving me a respectable 38 points in the first stage.

Fellow Stealthers Ballasch and Maretzo Jr. followed in short order, and we were off to a decent start. By now, conditions had begun shifting fairly rapidly between periods of overcast (with little mirage) and bright light. During the bright periods, the mirage was significant, and it grew worse as the day progressed. There was plenty to consider for each relay. What would the changing light conditions do to our elevation zeros, and what was the wind doing right now? The wind changed very quickly, and a good spotter could be worth his weight in gold under these conditions. By now, the Precision Shooting faction had begun to rely largely on Jim Borden's Leupold variable spotting scope. This gave noticeably superior results when compared to our other gear when looking for bullet holes or watching the bullet "trace" as it arced downrange.

At 300, I was up first with the .223 and

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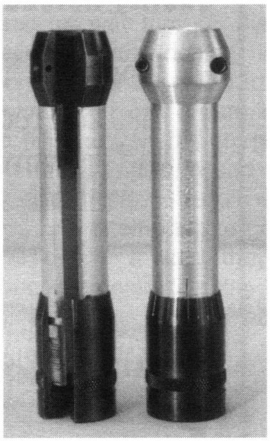

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Don was on the spotting scope. Our best guess for my first round was that I should hold center for both windage and elevation. I squeezed the trigger, worked the bolt and settled the rifle back into place, to be ready as soon as we saw the point of impact. My elevation was good, but the bullet printed just outside the groundhog's body to the right. The wind had pushed me clean off the hog! Don confirmed this and checked the mirage as I put the crosshairs on the left-hand edge of the hog. He cleared me to fire; one last check of my ScopLevel, and I exhaled gently and squeezed. As I worked the bolt, Don's exclamation of horror hinted that there was no joy in Mudville yet again. It seems the wind had let up just as I'd fired, and my bullet had gone right where I'd directed it - 1/2" to the *left* of the hog! ARGH! We took another gander at the wind, and agreed I should hold center again. By now predictably, the wind picked up as I fired, pushing me out to the right near my first bullet hole. I neatly bracketed the hog, and earned a big, fat "0" for score in the process. Chagrined, I changed places with Don, who mercifully did better with his Kelbly built 6 PPC. The good Dr. Maretzo Jr. followed, no doubt wondering how on earth he got roped into shooting with us, and did a good job of fending off sucker punches from his free-recoil 6 Ackley sparring partner.

At 500 yards, my relay got the benefit of some bodacious mirage, and the best strategy we came up with for the little .223 was to try to wait for a boil and shoot dead center. I managed 2 hits at this distance, for a total of 5 points, and then Don Ballasch took over the hot seat. Using Jim Borden's Leupold spotter, I managed to detect his bullet trace for the first shot and had him correct his windage. Miraculously, the mirage cleared enough at one point that I could briefly see his bullet hole in the white (*at 500 yards!*) and had him hold left. This bit of luck helped Don put a shot into the chest bullseye, and boosted our standings a little. Richard Maretzo Jr. followed again with the 6 Ackley. Unfortunately, the way he was squadded required him to set up on a different firing point and, in the confusion, I forgot to move the spotting scope directly behind him. In attempting to spot from the side, rather than from behind, I was unable to see the "trace" of his bullets in the mirage. Conditions didn't permit me to see his bullet holes either, so he essentially shot "blind" and was at a significant disadvantage. While this is not intended as a match report per se, I will say that Jim Borden seized the lead early on with a perfect 45 at 100 yards and never let go. He wound up as the match winner , using his 6 PPC benchrest rifle!

As the day progressed, we fired our second rifles. My Coleman-built .22-250 performed well. In absence of a loose nut behind the buttplate (me), it would have acquitted itself well. As it was, I steered it to a final score of 41 points, having experienced a significant elevation shift at 100 yards from the previous day's zero, plus about 1/2" more windage than I anticipated. Joe Betterton, my erstwhile shooting buddy from the Alabama National Guard, proved he was no Southern gentleman by handily whipping me with both my rifles, neither of which he had ever fired before. Had he had any sense of decency, he would have done something creative to salve my ego, like Don Ballasch did. (No doubt distracted by visions of taunting me for my poor performance in the team match, Don casually left his 300 yard zero on his Sako 6 PPC for his first shot at 100 yards). BOOM! I gazed through the Leupold as he neatly

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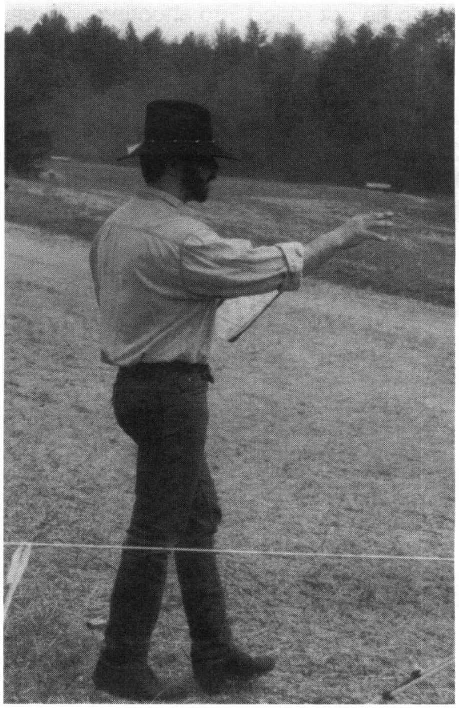
flipped a big 15 pointer into orbit above the groundhog's head. (His windage was *perfect*, by the way!) I will confess to gawking slack-jawed in amazement at Don's uncharacteristic goof, but the ensuing yowl of anguish he emitted did sort of help soothe my own sorely wounded pride. (Sorry, Don... heh, heh, heh!)

In between relays, we feasted our eyes on the rifles in use by the local shooters. Quality workmanship was everywhere, and it quickly became evident that skill with a rifle is still considered a virtue in North Carolina. I wish I could have recorded the names of all the nice folks I met that day, but there was just too much going on to take notes and compete, as well. (In retrospect... perhaps "compete" isn't the word I want... more like "participate"). As the sun began to settle in the west, the last shooters completed their 500 yard relay, and a hush of anticipation seemed to descend over the range as the target crew put out the egg.



Joe Craig was a heck of an effective Rangemaster, keeping things moving at a downright brisk pace throughout the day.

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Once More, Into The Breach...

Finally, the long-awaited egg match began. Conditions were still fairly challenging, and numerous shooters assayed their single shot at the egg without success. Eventually, as the wind and mirage began to die off in earnest, the first egg was shattered. Soon, shooters were hitting the egg with increasing frequency. Many of the Precision Shooting contingent huddled together discussing strategy, and several of us opted to try our luck with Jim Borden's winning rifle. We knew it was supremely accurate, and the 500 yard zero was probably as good or better than any of us had on our equipment. Jim graciously consented to let us use his equipment, and again, I was up first. With his help, I got the boosted 60x Leupold on target, and quartered the egg with the fine crosshairs. Jim stayed on the spotting scope; he'd proven his ability to read mirage and dope the wind earlier on the paper targets. Conditions were by now almost a flat calm, and our consensus was to hold center. I touched the 2-ounce trigger, and while my windage was good, the shot landed about 6" low. At the time that seemed surprising, but in retrospect it fit with my experience that shots in dim light tended to go low on that range.

The next shooter also fired low, and Jim adjusted the point of impact up. The next round hit about 2" high, and Jim corrected again. Finally, it was his turn. All our rounds had been good, windage-wise, and it appeared almost certain that he'd hit the egg, if the wind stayed down. One last check of conditions, and Jim fired. Our spotter was able to verify the point of impact by looking at the new hole in the box surrounding the egg. Jim's elevation was perfectly centered, but he missed the egg by almost 3/4" to the left! And so it goes... despite all care and a very accurate rifle, random chance or a tiny puff of wind prevented a clean sweep for Jim Borden on this occasion. (That's why we call it a sport!)

After an awards ceremony in which numerous prizes were handed out, we bade each other farewell and disbanded. As we scattered in our various directions, we all had plenty to mull over on the long ride home. After some consideration a few thoughts on strategy for next year occurred to me, and I'll offer them for those who are contemplating attending for the first time.

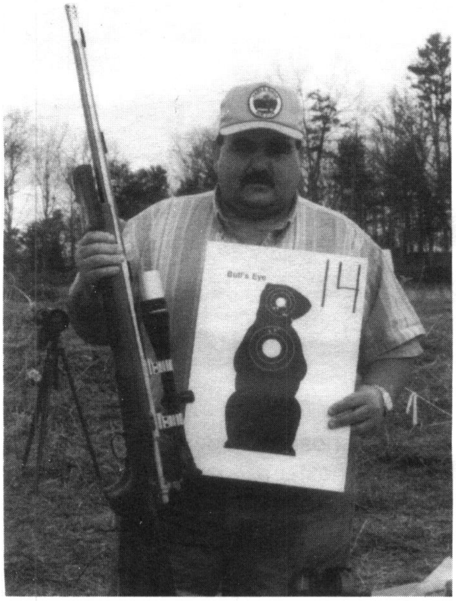
1. It's important to practice *prone* before the match, in order to weed out any equipment problems, such as short eye-relief or a rest which doesn't lend itself to uphill/downhill shooting.

2. One school of thought advocates using very powerful rifles to cut through the wind. There's no doubt that a .300 Magnum will do that, but beware: in this match, if the *outside* edge of your bullet touches a scoring ring *from the inside*, you get the *lower value*! Larger bullets effectively reduce the amount of room you have to play with inside the bullseye and still collect maximum points.

3. An excellent score at 100 yards appears to be a critical factor in winning. Thus, a cartridge capable of excellent inherent accuracy and reasonably good ballistics would appear to be a better compromise than a howitzer that will only group 0.75 MOA. (Of course, if your .300 Magnum shoots consistently in the 2's...)

4. If the conditions we experienced are typical, expect mirage (which is heightened when shooting prone) and frequently-shifting winds. Jim Borden, the Groundhog Match winner, described the conditions as "challenging". I'd personally amend that to read, "*distinctly* challenging". In the absence of my 6mm Ackley Improved, I opted to use my .223. I am familiar with it, and it is easily capable of perfect scores on the head bullseye at 100 yards and chest bullseye at 300 - *in good conditions*. Unfortunately, the weather didn't cooperate. Hindsight being what it is, I wish now that I'd opted for something with similar accuracy but a little more oomph for the longer yardages. However, with any rifle, the shooter still needs to read the wind - and I personally need more practice in this area!

5. Particularly on this range, it pays to be alert to changes in elevation zero based on the direction and intensity of the light. Given the size of the bullseye



Bill Shehane, of The North Carolina 1000 Yard Benchrest Club, was on the winning Three Shooter "Open" Team Contest.

and the fact that the 100-yard phase is fired first, without sighting shots, a small change here can easily cost you the match.

6. Prior to the match, be sure to hone your routine of setting up your equipment on the line. Speed here is essential, as there is very little time between relays - particularly at 100 yards. Levels on your rest and rifle scope are handy, as the range does have a definite slope from left to right.

7. If at all possible, plan to arrive early, in order to refine your zeros on the actual range prior to the match.

In conclusion, I'd like to express my appreciation once again to Mr. Willis and his staff. They put on a very fun and well-organized match, and did an outstanding job of handling a record-turn-out. Everyone I met was gracious and friendly, and the hospitality was delightful. I highly recommend this match as a fun excursion. If you're the steely-eyed reincarnation of Alvin York and varmints everywhere tremble at the mere mention of your name; COME ON DOWN! You might just want to test yourself against the fine local shooters at Hickory next year. The conditions can be arduous, and the targets are downright unforgiving, especially past 100 yards. Be warned, though... if you let your ego get wrapped up in this endeavor, be sure to bring talcum powder! (Driving several hundred miles with your tail tucked between your legs can result in some serious chafing!) In parting, I'll close with one last thought: during my stay in the Hickory area, I never once laid eyes on a live groundhog. After seeing how well the folks up there shoot... I think I *might* just know *why*!

(Photos of the Hickory Egg Shoot courtesy of Don Ballasch and Dick Maretzo).

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The 1995 Hickory Egg Shoot

An Interview with . . . TINA SEARCY

Overall Winner at 500 Yards

1995 Hickory Egg Shoot

by

Henry L. Ford

The first time that I saw Tina Searcy during the 1995 Groundhog and Egg Shoot, I just assumed that the attractive, petite red-headed lady was the daughter of an out of state competitor. Or perhaps the PS Editor had brought along one of the PS Sportswear models.

Later in the day, when Tina was the high scorer for the day at the 500 yard stage, with a 23 score...when Tina tied for sixth place overall with a score of 60 in a field of 174 shooters...when Tina wiped out the egg at 500 yards with her one shot...I (along with just about everyone else at the Shoot) began to ask just who this young lady might be, and where she came from. To my incredulity I found that Tina lives right here in Hickory, about five miles from my home!

After the results of the match became known, I noticed the PS staff clustered around Tina, and everyone talking at a mile a minute, arms waving, etc. No other winner that day got anywhere near that much attention...but on the other hand...there was only one pretty red-headed lady who shot well that day...and somehow one has to suspect that the facts are somehow or other connected. A few days after the match the PS Editor called me..."Henry...those nitwitted columnists of mine spent all their time flirting with Tina instead of getting background facts for our article". (Strange...I seem to remember his standing right there with his columnists...he and Don Ballasch were each doing their best to elbow each other out of the circle surrounding Tina at the time. Still, with age comes wisdom...and I decided not to mention this). "Henry, better get over there to see Tina, and get me some background facts on Tina. Those confounded idiotic columnists of mine... mumble...mumble..." (I still (wisely) said nothing).

I found that Tina was introduced to shooting about a year ago by her father, Gerald Green. A family friend owns a 1000 acre cattle ranch some 20 miles away, and up to 900 yards is attainable for prone or bench shooting. The first time she tried it, she used her father's 22-250 varmint rifle...and after being reassured that the recoil would not be in the life-threatening area, proceded to fire the first group of her career...a group that her father described simply as "a real eyebrow-raiser". Over the next several months Tina went out to shoot several times with her father and her friends, and it was not all that long before Tina was beating all of them.

Eventually Tina decided that she needed her own rifle (a not uncommon determination among people who find themselves getting serious about shooting). She phrased it thus: "Every time I shot anyone else's rifle we had to re-adjust the scope sight to my eyes, the rest to fit me, and not all the rifles fit me well. Sometimes the stock was too long, or the cheekpiece of the stock did not allow my eye to line up with the sights correctly. I needed a rifle that fit me!"

In last February Tina's father took her to a sporting goods store, and told her to pick out a rifle that she wanted. After looking them all over, and handling them all, Tina chose a Ruger 77V Mark II, in .308 Winchester caliber. With the benefit of hindsight, after the '95 Hickory Egg Shoot, it certainly looks as if she made a darn good choice back there in February.

As to equipment specifics...Tina shot a standard "factory" Ruger 77V at the Egg Shoot, with the sole exception that her father had honed the trigger to the point where it was around one pound. No other accurizing work had been done to the gun. In reloading for the rifle, Lee Collet Neck Sizing Dies were used, and the cases were neck sized for approximately 3/16". Tina's load on match day was 44.0 grains of IMR 4895 with the Sierra 150 grain Match King bullet, with a Leupold 36X scope topside.

Prior to the Egg Shoot Tina tells me that she and her father and friends would go out to that farm to practice on weekends, when weather permitted. Practice was done from the prone position at 100, 300, and 500 yards. "Most of my practice was done at 500 yards, because we felt that this is where the match could be won. A Lee computer program was a big help to us in figuring bullet drop and sight adjustments for the increased yardages." Tina's emphasis on 500 yard practice was obviously to pay off for her in a big way at the Groundhog and Egg Shoot.

Now that Tina has had a taste of success, I get the distinct impression that she intends to get more serious yet about her shooting. If she does indeed do just that, I have a funny feeling that sometime in April of 1996 the PS Editor will be calling me again. "Henry, those idiotic columnists of mine again failed to get me adequate background facts on Tina's shooting. I want you to get over to her house and...". And once again I'll be sitting there thinking... "But I thought I saw you very much in the crowd surrounding Tina after the match was over. You and Don Ballasch were elbowing each other...". But I'll sit there and say nothing. With age comes wisdom.

Henry L. Ford

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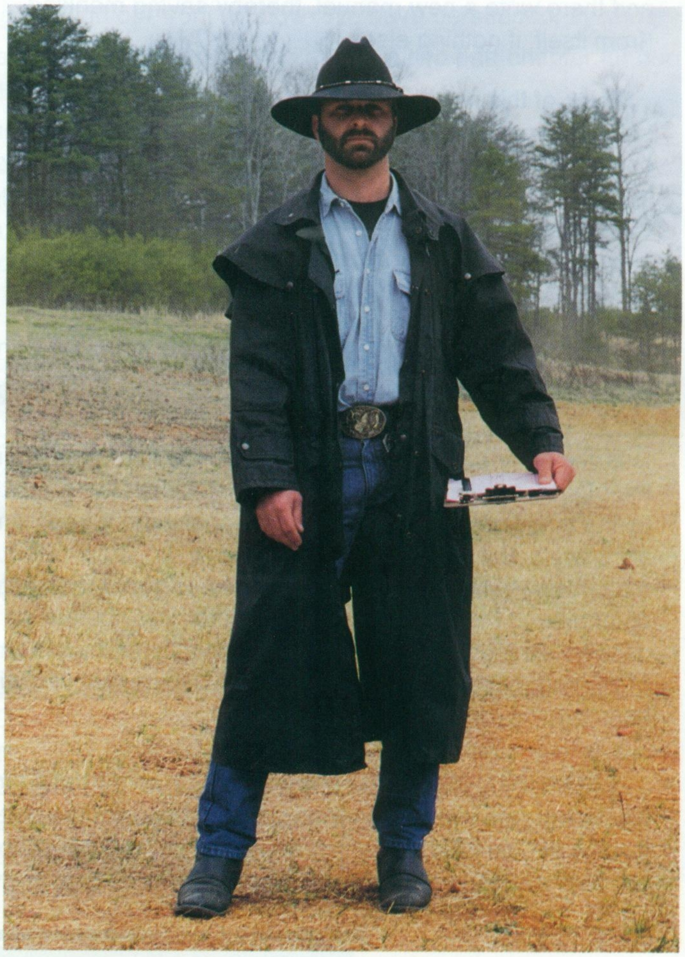
Direct above: Tina Searcy, female shooter extraordinaire, the outright winner at 500 yards at Hickory. Annie Oakley is alive and well, in Hickory, North Carolina.

Above right: Jim Borden, accuracy gunsmith extraordinaire, and overall winner of the Groundhog portion of the match, with an enchanted 6PPC rifle.



Right: Joe Craig, Range Master extraordinaire. One of the most competent Range Masters that we've encountered in our travels over the years.

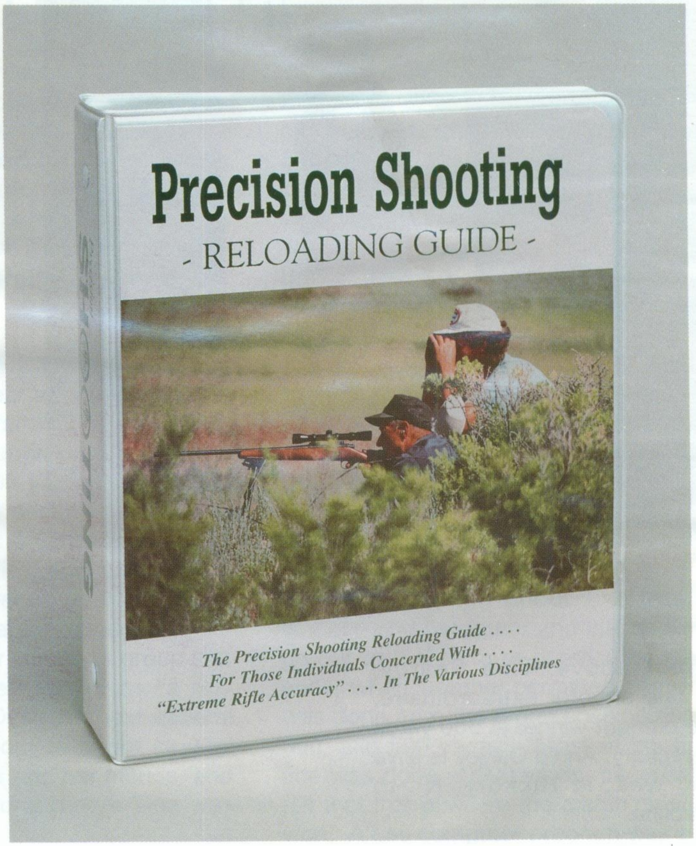
Introducing...

The Precision Shooting Reloading Guide

We have nothing against the several Reloading Manuals that are available to shooters today. Several of them are quite good, and we're happy to have them in our library here at the PS office. Just yesterday a subscriber from Colorado called to ask if we had any loading information on the Niedner .224 Lightning. A quick glance at Dick Simmons' "Wildcat Cartridges" turned up nothing, but C.S. Landis' "Twenty Two Caliber Varmint Rifles" has several pages devoted to this old-timer wildcat which is based on the .30-40 Krag, simply necked down to .22 caliber. If there's ever a fire at the PS office... we carry the books out first, and then if there's still time, we come back for the PC and other nonessentials!

Don't think of this as a Reloading Manual. It's not that. As we said above here, there are a number of good ones already on the market, and we have heard no voices from Heaven of late, urging us to go forth into the wilderness, and there write a new manual, thereby saving mankind (from itself, if nothing else).

Think of this rather as a Guide, for those who are starting to get serious about the pursuit of rifle accuracy in one area or another (that hopefully we cover). With a bit of luck our reader has done some reloading prior to reading our Guide, and knows "the drill", but does not think of himself as an expert or (worse yet) an authority on reloading.


Precision Shooting
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The Precision Shooting Reloading Guide . . . .
For Those Individuals Concerned With . . . .
"Extreme Rifle Accuracy" . . . . In The Various Disciplines
PRECISION SHOOTING

The Precision Shooting Reloading Guide starts off with a good-sized chapter "An Overview of Reloading For Extreme Accuracy", authored by **Fred Sinclair** and **Bill Gravatt**... the principals at Sinclair International. Hopefully the reader has had some exposure to handloading previously, and is capable of assembling a cartridge which looks more or less like a cartridge should look... and which, after being inserted into an appropriate rifle (without undue struggle)... when the trigger is pulled... produces a satisfactory "bang" (without undue struggle). Our opening chapter is ideally suited for taking a reloader of such a modest achievement level, and leading him, step-by-step, into loading for "extreme rifle accuracy". The chapter tells you what to do, and why you should do it. It is the ground floor for the whole book... and no matter how burning may be your desire to get to the chapter on the Great Love of Your Life... you simply must read and comprehend the Sinclair/Gravatt chapter first. Otherwise you are skipping the meat and potatoes, and going directly to the dessert... a practice that most of us gave up on by the time we reached second grade. The Sinclair/Gravatt chapter is one of the very best pieces of writing on reloading that you will encounter. Spend some time absorbing what is said here... before going further.

Dave Milosevich, The Leech Cup winner at Camp Perry in 1993 (1,000 yards, prone, iron sights) talks about the niceties of reloading for Highpower shooting with the bolt actioned rifle. David's article "Thirty Caliber: Still The 1,000 Yard Choice at Camp Perry" which appeared in Precision Shooting's "Special Issue No. 1" has been widely hailed as one of the best pieces ever written on Highpower shooting, and he was an easy selection for authoring this chapter.

John Feamster has authored a number of well-received articles for Precision Shooting magazine about his trophy winning "H-Bar From Hell", and was another easy selection to author the chapter on reloading for Highpower shooting with the semi-automatic "gas guns".

Dick Wright has been authoring benchrest shooting articles for Precision Shooting for a number of years now. The principal of Whitetail Design, a carbide-tool specialist for the reloading trade, Dick has a great deal of experience with just about all the accuracy-reloading tools in general, and the benchrest shooting tools in particular.

Jay Turner is a well-known writer for a number of firearms publications. As a resident of Alaska, he is exposed in the game fields of his native state to animals who have been known, on occasions, to take a disliking to people walking about in their territory... and who then attempted to remove the offending person from the Rolls of the Living. As a result of this poor attitude on the part of some of the local four footed denizens, Alaskan gun stores have a surprisingly high percentage of magnum-chambered rifles in their for-sale racks. Jay has been shooting the various magnums for many years now, and has been known to climb up on a soap-box and defend the occasionally denigrated belted case.

With the plethora of factory cartridges available today, wildcat cartridges are found less and less... since almost any reasonable need or perceived need is probably factory available. Still, a fairly high percentage of Precision Shooting readers are the kind that Never Will Be Satisfied, and who wish to sally forth, either to the rifle range of the game fields, with a rifle chambered for their own individual Great Vision. Popular Precision Shooting columnist **Rich Kayser** was chosen to author the Wildcat cartridge reloading chapter if for no better reason than he has fathered two wildcats of his own, and also because he has a decided inclination to joust with the windmills, in quite quixotic fashion. It could be said that a certain portion of this chapter is philosophical (rather than practical) in nature. Wildcats are like that.

It would be unfair of us to give the dreamers and mystics (read: the wildcatters) their own chapter... and ignore the romanticists and revolutionists (read: the cast bullet, Schuetzen, and single-shot rifle folks). Such overlooks give rise to picket lines around the PS office, and an occasional brick coming through our front window. We have persuaded, by sheer eloquence of oratory (read: unveiled threats) lead bullet enthusiast **Roger Clouser** to author a two part chapter for our romanticist friends: Pouring Cast Bullets... and Loading Cast Bullets... for extreme accuracy.

Finally, **Dan Hackett** has authored a chapter for us on working up an accuracy load. It little behooves us to be turning out loaded cartridges that are so perfectly straight that atomic measuring devices can find no flaw in them... if we do not know how to find the most accurate load for the wonderous cartridges that we are turning out. Dan knows a lot about wringing the last bit of accuracy out of a rifle... and he graciously shares much of this information with you in this chapter.

The Precision Shooting Reloading Guide, like the magazine itself, is not for everyone. But, having started reloading at one time with much trepidation, many years ago, we often wished we could have an "expert" to talk to when we were floundering about with whatever was our problem of the moment. Today, many years later, we still find ourselves with reloading problems, from time to time. And when you have problems in life... there's nothing like an old friend to help.

Hopefully, over time, you will come to think of our Reloading Guide as an old friend. That would greatly please all of us who were involved in its creation.

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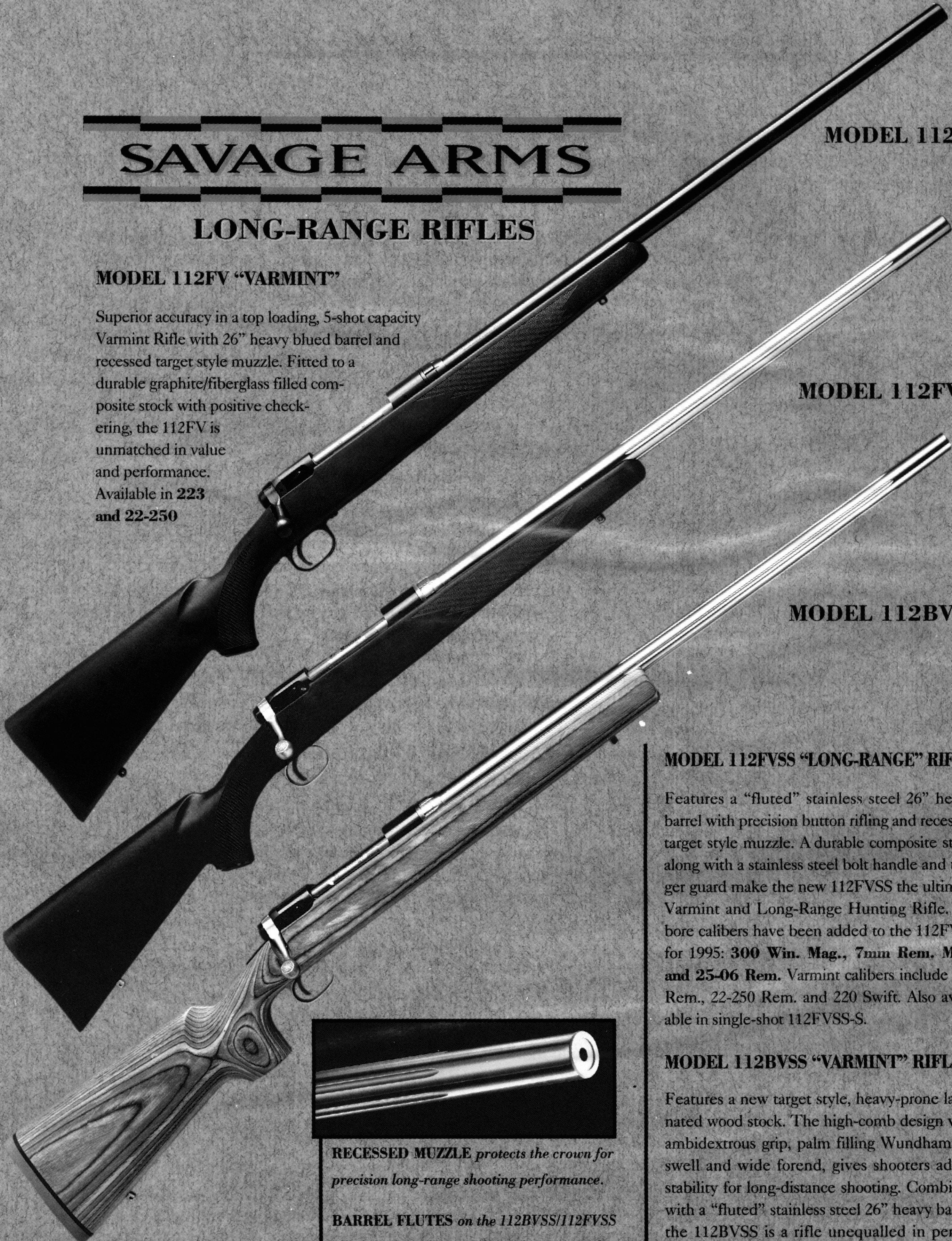

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NATURE OF THE BEAST

PART 2 — THE SEARCH CONTINUES

by

Dave Scott

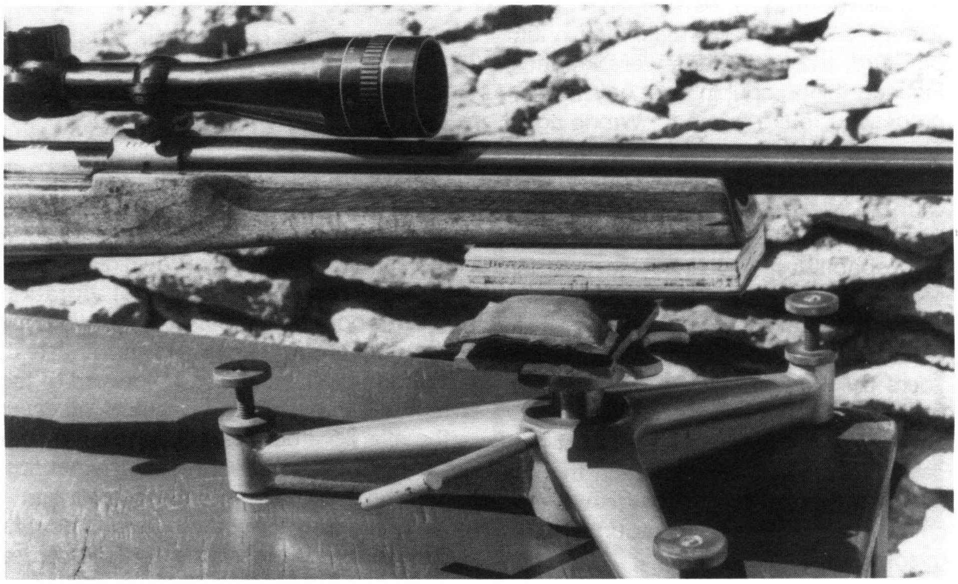
When the stranger at the next bench turns to you and whimpers that his .270 is shooting all over the target, what's the first thought that crosses your suspicious mind? Exactly. As you nod sympathetically and glare with mock contempt at the offending rifle, you're wondering if the problem is the gun or the guy operating it.

In Part 1 of this series dealing with the Beast (the name I've assigned to my troubled Winchester Model 70 in .225), I humbly pointed out that the first **possible** source of its accuracy problems was me. Yes, yes, as unlikely as this might be, you were thinking the same thing. Don't deny it.

That accusation was even directed my way in a letter from a friend and shooter of slag bullets, Bill McGraw of Greenville, Mississippi. I was not insulted by Bill questioning my supposed shooting abilities. Well, maybe some, but I'm over it now. After all, surely any shooter who values accuracy will concede that the best use for the old Model 70 stock and its ilk is firewood. The same anemic dimensions that make these stocks so grossly ugly in my eyes also begin to complicate life the moment you sit down at a bench. Not only are the little, rounded toothpicks subject to canting, they're more difficult to hold on target while you're squeezing the trigger. Then when the rifle recoils, the tubular surface offers little resistance to twisting, which surely harms accuracy. And if we heed what competitive benchresters have long regarded as gospel, the somewhat greater flexibility of less substantial forends also tends to spray your expensive bullets about the target. All this considered, any shooter's failure to achieve good, consistent accuracy from this style of stock is completely understandable and does not reflect badly on that individual's sandbag skills.

Switching stocks

Nevertheless, to defuse this controversy pronto, I took the barreled action out of the wimpy factory stock and painstakingly epoxy bedded the action into a heavy Herter's laminated stock for the express purpose of shooting the rifle free-recoil, thus pretty well taking me out of the equation. The free-floating barrel has probably 1/8" clearance between metal and wood. While laboring on the colorful chunk of lumber, I attached to the 2-1/4"-wide forend a rigid rectangle of thick plywood, using screws and epoxy. In order that it slide smoothly on the front bag, a thin veneer of slick Formica was epoxied to the bottom of the plywood. The 3"-wide addition creates a flat, broad surface for riding the bag. Friends, this is serious equipment.



A 3"-wide piece of plywood securely attached to the forend of a heavy Herter's laminated wood stock allows the Beast to be fired free-recoil.

In addition to allowing the rifle to be fired with minimal involvement on my part, the heavy, beefed-up stock makes aiming more precise and effortless. Too, the rigid forend and added weight should help the rig perform to its full capabilities, ghastly as they have thus far proven to be. Aside from being wood, this comes close to being my dream stock, but would it outdo the factory plank?

An astonishing breakthrough

With the project complete, I hurried to the range, where I encountered a clear sky, light breezes at my back, 80-degree temperature and fairly heavy mirage visible in the 16X Leupold. Resting just my thumb on the grip for help with the 1-1/2-pound trigger, I poured 5 shots at 100 yards in .75", using plated cases with .002" total clearance (.001" all around) between case neck and chamber. (Kindly see group 1.) While the group certainly is nothing to write home about, what caught my attention is the pattern. It consists of two separate, tiny groups, possibly indicating manageable barrel vibration problems that might be corrected with a load change. Were we on the verge of a breakthrough?

Next afternoon, when the first group with standard unplated cases grouped in .455", I was certain we had finally struck pay dirt. Group 2 is the smallest fired since the recent round of experimentation began several months ago. I sped home (a relative term when one drives an Escort) on an adrenalin high, muttering to myself that the 38-year problem with this Model 70 had been the stock and shooter all along. Problem solved. Mission accomplished. I offered thanks for my incompetence. Utter, devastating disgrace is preferable to a horribly flawed rifle every time.

Continued on next page

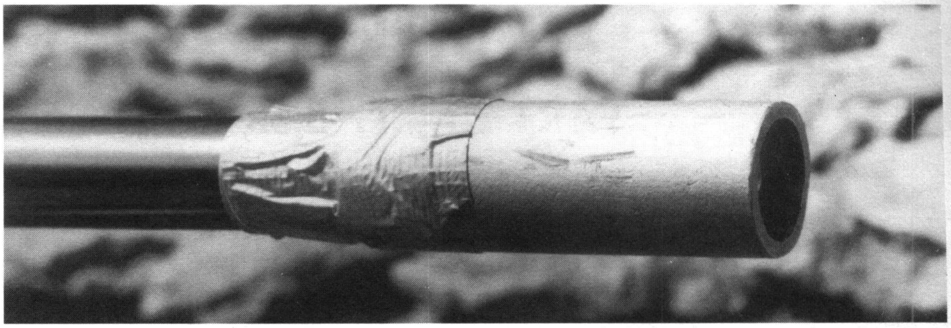
NATURE OF THE BEAST

Continued

Never mind

And once again for the millionth time I demonstrated the danger of jumping to conclusions when it comes to the maddening complexities of rifle accuracy. Kindly fix your beady eyes on group 3, fired the next day with the same load and bench technique used for group 2. Except for a 10-degree difference in temperature, the conditions were identical. Figuring things couldn't get any worse, I proceeded to fire group 4. Wrong again. Things **could** get worse. Measuring 1.55", this splattering ranks right up there with the vilest. What changed between these groups? On group 2, did the laws of probability finally favor me with five shots without flyers? Or was it the other way around; did five flyers veer into the same area? Either way, the stock and yours truly apparently are blameless for the Beast's most pressing malady. Those who find this disappointing at least can take heart in the realization that the list of possible problems grows ever smaller. Now we can focus on the barreled action.

By the way, the reason I usually fire only one group at each range session is because as explained in Part 1, the Beast has a nagging tendency to produce a large first group from a clean, cool barrel, followed by a pleasingly small second group—but not always. Therefore, when we've achieved an acceptable first group from day to day, our work is done. What's an "acceptable" first group? I don't think it's asking too much for the rifle to group .75" or less for 5 shots at 100 yards. Furthermore, although I'll continue to use the Herter's stock for testing, the rifle finally must pass muster with all its original parts—including the factory stock—before we break out the prune juice in wild celebration.



In an abbreviated test to gain insight into the Beast's barrel vibrations, this length of pipe was slid over tape wrapped around the barrel and then taped in position.

Testing barrel vibes

To back up a bit, before making the stock change, I tightly taped a 3" length of heavy-wall steel pipe to the muzzle, an experiment inspired by Browning's BOSS and a recent flurry of barrel vibration tests reported in *Precision Shooting* by the rimfire community. In the first test, with the pipe extending 1" forward of the muzzle, the grouping characteristics of the rifle were definitely changed. For the first time since recent testing began, the first three shots from a clean, cool barrel clustered tightly together, and I thought perhaps we were at the threshold of a dramatic cure, thanks to the crude barrel extension. Shot #4, however, flew low and to the right, and the 5-shot, 100-yard group wound up measuring a typical 1.290". (Please see group 5.)

In a second vibration test days later, the pipe was positioned so it extended only 1/2" past the muzzle. A single group from a clean, cool barrel measured .975". (Group 6.) Although the group is mediocre, it still ranks as one of the tightest initial groups produced since I began working with the Model 70 a few months ago.

Adding a barrel weight was never contemplated as a permanent solution to the rifle's problems. This was purely an experiment to perhaps determine to what extent erratic and exaggerated barrel vibes lie at the core of this rifle's sorrows. If there are meaningful revelations in the two targets, other than a shift from vertical to horizontal stringing, they escape me. What I can only speculate the targets show is even though the barrel device indeed resulted in a change in group profile, frequent flyers continued to show up. More of the same aggravating inconsistency that is, and always has been, the nature of the Beast.

The final frontier

So finally we arrive where all along we suspected the project would take us: the critical regions of the barrel. If we're unable to detect harmful stresses deep in the barrel metal, at least we can inspect and measure the bore, looking for disastrous glitches to render the barrel null and void for accuracy. By "we" in the preceding sentence, I mean those with the instrumentation to monitor the barrel interior and the knowledge and experience to analyze what it all means to a bullet. I can't think of anyone more qualified to do precisely that than Shilen Rifles, the barrelmakers in Ennis, Texas.

After explaining the situation by phone to Doug Shilen, he kindly agreed to inspect the Winchester barrel. I had already decided if the barrel wizards in Ennis thought the tube was even marginally serviceable, off it would go to 300 Degrees Below for cryogenic stress relieving. I suspect many shooters are interested in this treatment. Just before

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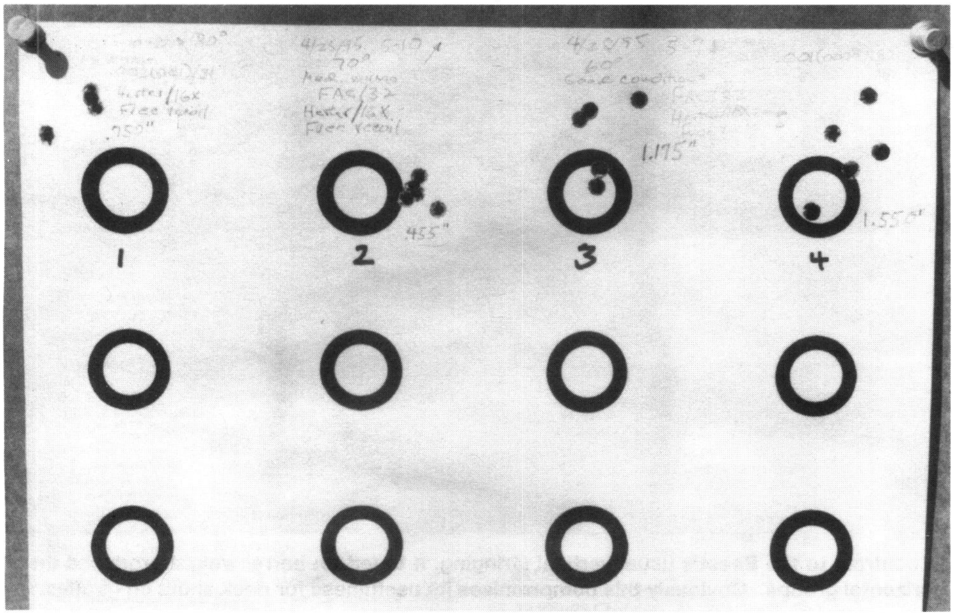

Soaring expectations inspired by the first two groups with the new stock were later cruelly dashed by groups 3 and 4.

custom rebarreling, it provides one more promising option, one last glimmer of hope when every known tuning card has been played and still a rifle's accuracy sucks. If deep freezing helps the Beast, there's renewed hope for every last rifle out there.

Shilen meets the Beast

As promised, Doug was on duty bright and early, eagerly anticipating the arrival of the Beast. In a few minutes the barrel had been loosened, and Doug was uttering those same puzzling hmmmms your doctor employs to scare you witless as he eyed the barrel alignment and mating shoulders of barrel and receiver. A black smear from a marking pen was used to determine that the barrel shoulder was not snugging up evenly to the receiver. Gene Holubar, who handles much of Shilen's action work and barrel fitting, trued the front of the receiver, allowing the barrel shoulder to fit evenly all around against the receiver. One possible problem eliminated.

Next both Gene and Doug closely inspected the bolt locking lugs and echoed my assessment in Part 1 of this series that although contact between the lugs and receiver was only partial, at least both lugs were bearing evenly. Gene saw no necessity for lapping, and the locking lugs were ruled out as a problem.

That done, Doug turned his attention to the barrel. The groove diameter near the muzzle measured .2238", slightly under nominal groove diameter of .2240". Close enough. No problem here. The borescope, however, revealed surface finish problems to the trained eye of this barrelmaker. "I'd estimate that 30% of the portion of the barrel toward the muzzle has the original reaming marks of manufacture," Doug observed, still peering intently into the borescope. "This gives a kind of washboard effect. Since the bore at the muzzle is slightly undersize," he continued, "we can go in there and lightly lap it to help smooth this out without making the bore oversize, which would hurt accuracy."

His description of bore roughness came as no surprise. I could feel it as I pulled brushes and patches through the barrel, even when it was clean. Too, the

Continued on next page

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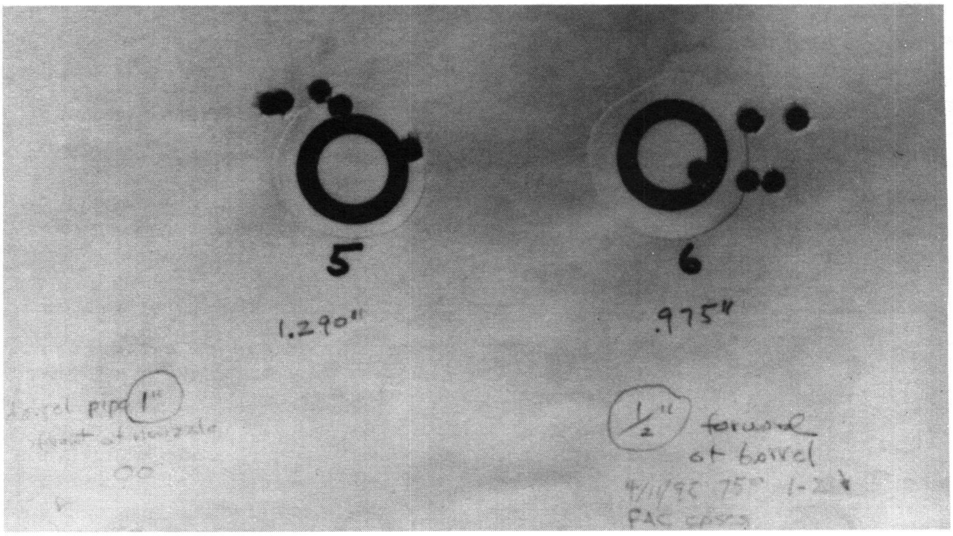
NATURE OF THE BEAST

Continued



In contrast to the Beast's usual vertical stringing, a taped-on barrel weight produced these horizontal groups. Obviously this compromises its usefulness for neck shots on giraffes.

level of barrel fouling after 5 to 10 shots, as evidenced both by drag on the cleaning rod and the color of Hoppe's BR after sitting overnight in the bore, confirmed that the inner surfaces were playing hobs with bullet jackets.

After the lapping process, the edge of the crown was moved back about 1/16" to eliminate any slight belling caused by the lapping rod. The total operation gave the Beast a fresh, new crown, and in addition to improving the surface finish helped bring the bore to more uniform dimensions. As the last step, Doug measured the smoothed grooves near the muzzle at .2240", right on the money.

Based on the rifle's performance, I suspected it possessed a flawed chamber. However, such was not the case. To Winchester's credit, Doug pronounced the chamber acceptably straight and true, as far as he could tell from borescope examination.

Back in his office, I asked the younger Shilen the question every barrelmaker or gunsmith dreads: Is it fixed, huh, huh? Doug took a deep breath, and patiently explained that the three steps taken **should** make a difference. "Whether this will consistently help the problem we won't know until you shoot it, but my guess is, your average group size will be smaller," he ventured.

As I contemplated his words, Doug picked up one of Shilen's stainless masterpieces and peered down its gleaming bore, in the process nonchalantly waving it under my nose. "Of course," he added, "one of these would likely put a quick end to your problems."

I stared glassy eyed at the tube I had instantly identified as a #5-1/2 contour—perfect for the Beast. I felt the sweat pop out on my brow. I knew Doug could hear my breath coming in short gasps. Every fiber of my being wanted to scream, "Yes, yes, put it on! End my suffering! Have mercy on this unworthy primer popper!"

Then in this moment of supreme temptation, I was confronted by my firm commitment to all of you who mark your dismal existence from one issue of *Precision Shooting* to another. I promised you that together we'd get to the bottom of this pathetic rifle's problem and correct it in its present factory form. And by golly, a dude is only as good as his word. Besides, I'd have to sell some vital body parts to bankroll a rebarreling project. Drats.

Back home, I was delighted to discover that Shilen's lapping job had literally worked miracles on this rifle's bore finish. In several months of pulling brushes and patches through the barrel, I'd memorized the texture of its innards. Roughness could easily be sensed along the entire length of the tube. Now a tight patch slipped through with no feeling of roughness whatsoever. The change was incredible. Reason tells us this new bore surface is going to reduce fouling problems.

But has it helped the Beast's accuracy? As a result of the barrel lapping, recrowning and truing of the barrel-to-receiver mating surfaces, does the rifle shoot better? With daily stiff breezes punctuated by rain, hail, flooding and far too many local twisters for comfort, I haven't been able to shoot. But I assure you that details will follow in Part 3. Until next time, bye bye.

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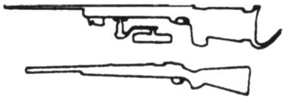

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The Conclusion of Our Two Part Palma Match Coverage

WINNING SILVER

Part II

by

Dennis Flaharty

(Photographs herewith are gratefully credited to Johnie Franklin, US Palma Team Official Photographer, as well as a large number of others whom the author either smooth-talked or bullied... as the case may be... into loaning him their Palma photos for this article. Thanks to all of you for your help and assistance).

Opening Ceremonies

The World Championships of long range rifle shooting were officially opened by Her Excellency Dame Catherine Tizzard, the Governor General of New Zealand, at Seddon Rifle Range, Upper Hutt on January 16th 1995. The opening ceremony included a reenactment of the opening of the Wimbledon Common Range by Queen Victoria on July 2, 1860. The "First Shot" was fired by the Governor General using the same Whitworth rifle and rifle stand that was used at Wimbledon 135 years ago. On that day in 1860, the Queen's opening shot was fired from 400 yards. For our opening ceremony, the rifle was fired from 500 yards. In 1860 Queen Victoria's first shot is said to have hit 1 inch from the center. And, as you may have guessed, the Governor General's first shot hit in the center (V-Bull) as well.

New Zealand's Governor General firing the first shot of the games

Of special note was the Ancient Maori Ceremonial Challenge performed for the visitors and guests. The ceremonial challenge called the Wero or Taki is an ancient warrior tradition of the Maori people of Aotearoa, New Zealand. Many years ago it was used to determine whether visitors came in peace or with hostile intent.

Maori Warriors

We were told that the Wero was normally comprised of three male toa (warriors) who were specially selected to perform the ceremony. In ancient times it carried tremendous risk, for these warriors walked the narrow line between life and death. The first warrior carried the Rakau Whakaara - the warning dart. He approached the Governor General's group as well as some of the representatives from the international teams. He tossed the dart, a large ornate wooden dagger-like object called a Rakay, at the feet of the Governor General's group. The dart is expected to be picked up and, if not, a battle may ensue.

The second warrior approached the group with the war dart and tossed it at their feet. We were told this is the time most hostilities would occur if planned. The third and final warrior approached the group with the clearing dart called a Rakau Whakawaha. Once this final dart is picked up by the visiting group, the third warrior performs the Whakawaha signaling all is safe. He does so by slapping his right thigh. He then runs back to his fellow warriors. All throughout this ceremony the warriors yell, stick out their tongues, swing their war clubs and perform mock charges. It is very colorful and very intimidating. It is said that when Captain Cook landed in New Zealand that this Maori greeting ceremony sent chills through his men who believed they were under attack.

The Governor General of New Zealand was joined by many diplomats from around the world including Germany, South Africa, Great Britain and Australia. She opened the ceremony with a traditional Maori greeting:

"No reira ki te manuhiri tuaranhi e,
Nau mai haere ma ki tenei whenua pounamu o Aotearoa".

"To our distinguished guests from distant lands,
We welcome you to the Greenstone shores of Aotearoa New Zealand".

Individual World Championships

It was Tuesday, January 17th. We had been in New Zealand for just over 2 weeks. We knew the range and we were ready to compete. No more A class vs O class. Everyone would shoot the New Zealand World Championship ammo.

This day saw the U.S. take gold medals at every yard line, and the 1st day aggregate. Unlike the New Zealand Nationals, we now shot only Long Range: 800, 900 and 1000 yards, or 8, 9 and 10 as the Kiwi's say. We had the ammo quality control process honed to perfection with each round weighed and checked for straightness. The weather of Trentham lived up to its reputation. On day 3 during the 900 yard stage I got caught in a torrential down-pour. The only good thing is that the wind became steady for the first time in 2 weeks. All throughout day 1, 2 and 3 the winds were variable and sometimes unpredictable. They came predominantly from the northwest but, as the Antarctic storms brewed, the wind would suddenly shift to southeasterly bringing rain, clouds and lower temperatures. The Trentham Ranges require a little bit of luck and a lot of skill to win. More than one excellent shooter was wiped out because of a bad relay or a bad target assignment. My good friend, Dr. Roger Culbertson, was very proud of the fact that this was his 3rd New Zealand trip and he had not shot a miss. I told him that I had him beat because I shot a miss my first time in New Zealand. The targets on Seddon Range have alpha-numeric designations. The first block is A or alpha 1 through 10, the second is B or beta, and so on through E or echo block. Alpha block is affectionately known as Magpie Alley. Getting a target assignment on Magpie Alley could be the kiss of death given the wrong wind conditions, especially any wind coming from the west. The prevailing wind, by the way, is forced to rise over a large hill located near the alpha block. This negates most of the wind flags on that part of the range and leaves the shooter wide open to be "Trenthammed", as the Kiwis say. We don't have a name for this wind condition that is quite as polite.

The results of the Individual World Championships are listed in the accompanying tables. Day 1, 2 and 3 list the top 20 U.S. shooters indicating their place for that specific match. Overall the United States had nine shooters listed in the top 50 after the World Championships had been completed.

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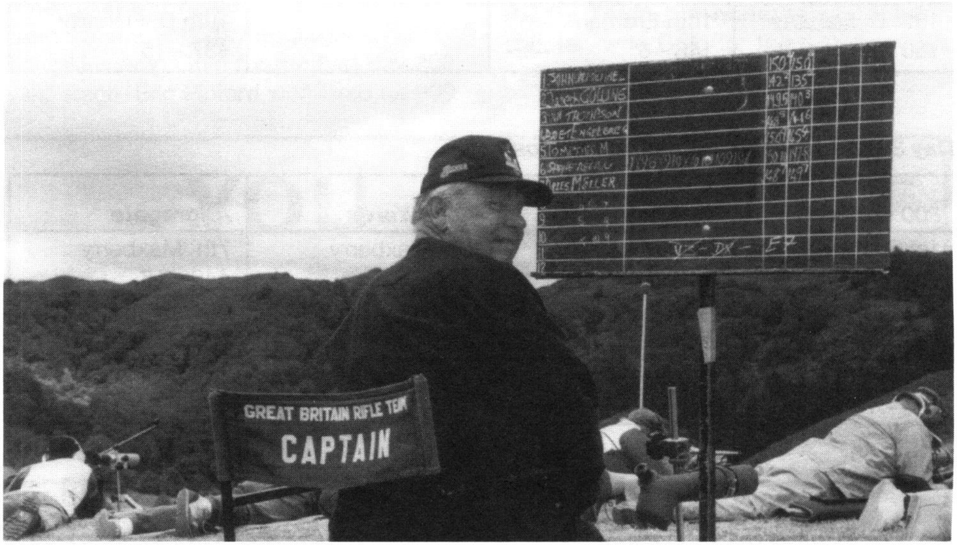

Mid Tompkins, captain U.S. Teams checkscoring

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WINNING SILVER

Continued

Top 20 United States Shooters in the World Championships

Day 1 World Individual Championships

800 Yards	900 Yards	1000 Yards	Aggregate
1st N. Gallagher - Tompkins 150 - 11X	1st E. Pintard 148 - 5x	1st T. Branter 146 - 06X	1st D. Sutton 441 - 1X
11th B. Meek 149 - 9X	2nd D. Sutton 147 - 3X	4th D. Sutton 145 - 3X	4th E. Pintard 435 - 18
17th D. Sutton 149 - 4X	14th T. Whitaker 145 - 3X	11th B. Rollins 143 - 1X	19th Gallagher 429 - 13
18th D. Flaharty 149 - 4X		16th R. Anthony 142 - 1X	20th D. Flaharty 429 - 12

Day 2 World Individual Championships

800 Yards	900 Yards	1000 Yards	Aggregate
1st R. Anthony 150 - 10	6th E. Pintard 149-08	3rd E. Pintard 145 - 3	4th E. Pintard 443 - 18
18th W. Tabor 150 - 9	9th La Berge 149 - 6	20th Erdman 142 - 4	8th Erdman 440 - 16
19th D. Flaharty 150 - 9	14th Erdman 148 - 6		19th D. Flaharty 437 - 15

Day 3 World Individual Championships

800 Yards	900 Yards	1000 Yards	Aggregate
1st Franklin 150 - 13	6th D. Flaharty 148 - 6	6th Maxberry 146 - 5	7th Maxberry 440 - 16
6th Del Sesto 150 - 12	18th Del Sesto 147 - 6	12th Gamba 145 - 4	9th Gamba 439 - 15
8th Rollins 150 - 11	20th Hutton 147 - 6	16th Gallagher 143 - 7	11th Del Sesto 438 - 20
			12th Franklin 438 - 19

World Individual Championships Final - Top 50 United States Finishes in the World

3rd	E. Pintard	39th	B. Tabor
18th	D. Sutton	42nd	T. Whitaker
23rd	N. Gallagher-Tompkins	43rd	M. Dunia
29th	M. Maxberry	46th	B. Rollins
30th	D. Flaharty		

The final top ten from the World Individuals were invited to participate in a final match to be conducted at 1000 yards. Fifteen shots with two convertible sighters added to each competitors 3-day aggregate would determine the World Champion. Only one American, Eric Pintard, made the cut. Eric went into the final match in fourth place and seven points behind the front runner, Tony Ringer, of Great Britain. I was honored to be Eric's official scorer and the scene was set for the 10 best to shoot it out. Ringer just had to hold on, everyone else had to shoot almost perfect scores of near 150. The wind was typical Trentham as Eric started with 12 1/2 minutes right wind for his first sighter. A nine at 8 o'clock. Not enough windage and a little low due to temperature. Most of the other 9 shooters also had wide first sighters including Ross Geange who shot a 7 at 3 o'clock. Remember Ross? He won the New Zealand Nationals 3 days prior. Shot for shot, Eric did excellent. His windage zone ran from 15 minutes right to 9 minutes right. The actual conditions ran from 18 minutes right to 5 minutes left. Eric had learned when not to shoot. When it was all over Tony Ringer had held on with a shoot-off score of 143 - 2X and a total score of 1455 - 53X. Dave Calvert, also of Great Britain, was second with a shoot-off score of 145 - 3X and a final score of 1451 - 55X. Eric Pintard won the Bronze with a shoot-off score of 143 - 4X and a final score of 1448 - 56X.

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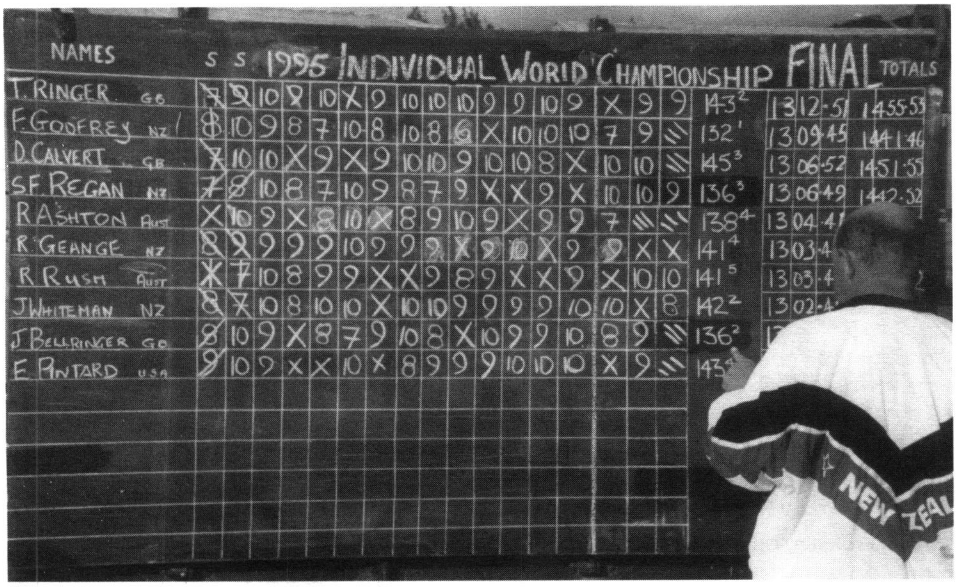
1995 INDIVIDUAL WORLD CHAMPIONSHIP FINAL
NEW ZEAL

NAMES	S	S																	TOTALS
T. RINGER GB	7	9	10	8	10	X	9	10	10	10	9	9	10	9	X	9	9	143^{2}	1312·51	1455·53
F. GODFREY NZ	8	10	9	8	7	10	8	10	8	6	X	10	10	10	7	9	\\\	132^{1}	1309·45	1441·46
D. CALVERT GB	7	10	10	X	9	X	9	10	10	9	10	10	8	X	10	10	\\\	145^{3}	1306·52	1451·55
S.F. REGAN NZ	7	8	10	8	7	10	9	8	7	9	X	X	9	X	10	10	9	136^{3}	1306·49	1442·52
R. ASHTON AUST	X	10	9	X	8	10	X	8	9	10	9	X	9	9	7	\\\	\\\	138^{4}	1304·4	
R. GEANGE NZ	8	9	9	9	9	10	9	9	9	X	9	10	X	9	9	X	X	141^{4}	1303·4	
R. RUSH AUST	X	7	10	8	9	9	X	X	9	8	9	X	X	9	X	10	10	141^{5}	1303·4	
J. WHITEMAN NZ	8	7	10	8	10	10	X	10	10	9	9	9	9	10	10	X	8	142^{2}	1302·4	
J. BELLRINGER GB	8	10	9	X	8	7	9	10	8	X	10	9	9	10	8	9	\\\	136^{2}		
E. PINTARD USA	9	10	9	X	X	10	X	8	9	9	9	10	10	10	X	9	\\\	143		

World Championships Leader Board

Tony Ringer of Great Britain being chaired around Trentham Range after winning the World Championships

In a similar fashion to the Queen's 50 a Large "Leader Board" was brought out to communicate to the spectators the scores as they developed. The checkscoring was also done in a similar fashion, with blue dots placed on a scaled-down target, shot for shot, to show every one how each shooter was grouping. As I have said before, this is an excellent way to get the spectators involved. We should do something like this at all of our matches to promote spectator participation.

The World Individuals saw quite a few Americans win medals. Dan Sutton won Gold for the first day aggregate. Nancy Tompkins won Gold for the first day 800 yard stage. Eric Pintard won Gold for 900 yards and Bronze for the 1000 yards. Dan Sutton also won Silver at 900 yards. T. Branter, an American not with the U.S. Palma Team but nonetheless a great shooter, won Gold for the first day 1000

Continued on next page

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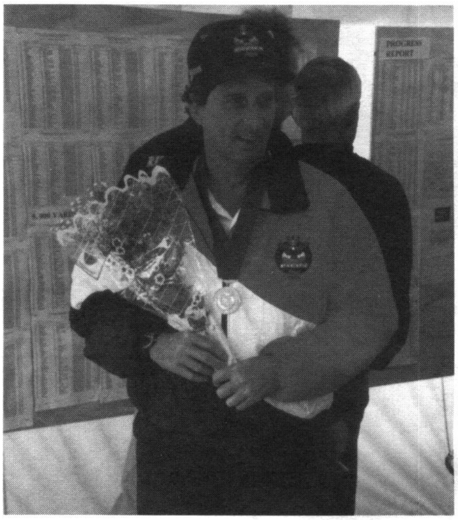
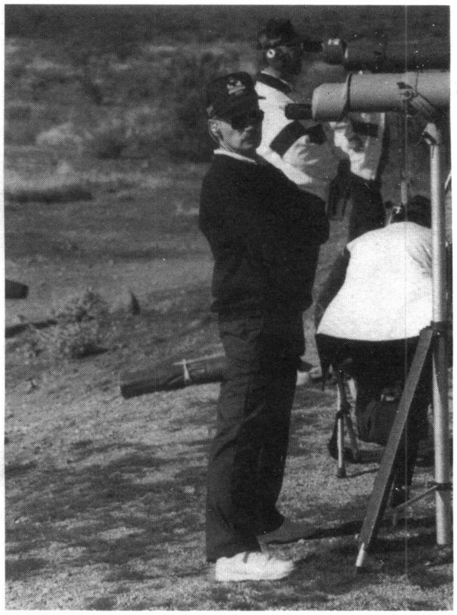
(Left to Right) David Calvert (Silver), T. Ringer (Gold), and Eric Pintard (Bronze)



Johnie Franklin, Gold Medal-800 yards



Alan Warner, Gunsmith and Teammate extraordinare

WINNING SILVER

Continued

yard stage. Johnie Franklin, team photographer, (refer to cover photo P.S. Magazine, February 1995 issue) won Gold on day 3 at 800 yards.

Guatemala Gunsmith

This story could not be told without proper mention of Alan Warner and Guatemala Gunsmithing, located in the beautiful Hawks Inn, Upper Hutt, New Zealand. Actually Alan took G.G. everywhere he went. Alan worked all day on the range and all night back at Guatemala Gunsmith headquarters. Every day there were new problems. On day one, Nancy's front sight broke right off her rifle. On day 18 my stock warped (remember the rain) so badly it had to be rebedded. Alan worked on it all night. Of course he didn't start until 7:00 PM because I wasn't first in line. Alan was actually somewhere between a country doctor and a gunsmith. He gave good advice and did good work. Alan kept the team going. The guns worked and Alan was always there to pat you on the back or give you a "kick in the ass"— whichever was appropriate!

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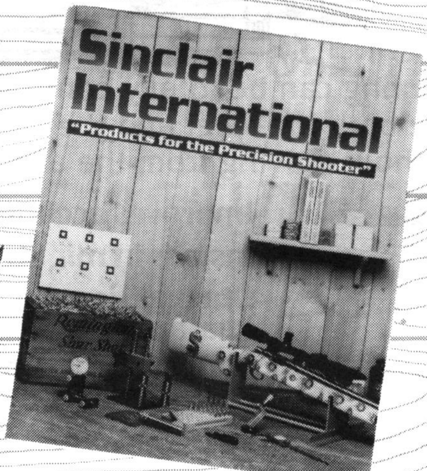

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Practice Day, Kevin Thomas (Sierra Bullets) in foreground

Friday, January 20th, and this is it! The last team practice before the Palma Match. This is what we had come this incredibly long distance for. It was time to break out the team scopes. Coaches meetings were more frequent now and the anxiety was rising. Our practice that day went great with none of the problems experienced earlier. Our coaches were in sync, shooters were on, and we were ready. After all of the shooting we had completed in the past weeks, there were no more shooting bugs to be worked-out.

The beads hanging from each of the coaches' Unertl team scopes still drew many queries as to their purpose and origin. One of the team members told an Australian that they were ancient Navaho Indian Wind Beads to bring us good luck. Actually they were visual indicators for each of the other coaches to communicate how much wind their shooter had on the rifle. Using different colors for 1 click, 5 clicks, or 10 clicks, a quick glance would let you know where the line was. This allowed each coach to communicate the wind changes without yelling it about the range. Credit for this goes to Charles Hathaway, Coordinating coach extraordinare.

Continued on next page

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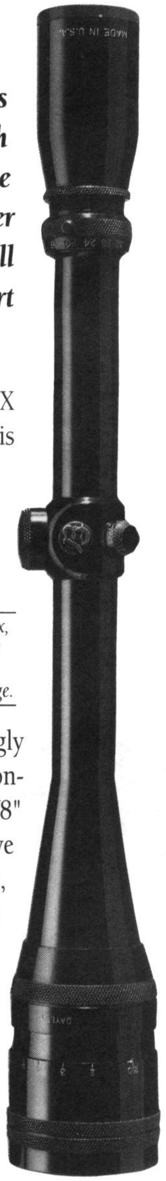

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WINNING SILVER

Continued

Palma Day 1

Day 1 on Seddon Range

This is the first time in Palma history that there was a Day 1 and Day 2 as opposed to just "The" day. Adding a second day was approved by the Palma council after the 1992 Palma Match in Raton, New Mexico.

It had been ten long years since the United States had brought home placing medals from the World Palma Championships. The first day of the Palma Match began in the dead calm of the early New Zealand morning. This match would prove to be a shooters contest. With virtually no wind to contend with, the U.S. team called both the first and second relays to the line. Each coach was straddled by a shooter to their left and right. This key strategic move by the coaching staff eliminated the second shooters need for precious series set-up time. As the first relay completed their two sighting shots and fifteen shots for record, the second relay shooters began firing without hesitation. And so it went for the third and fourth relay. In a record time of 39 minutes, the U.S. team completed the first 800 yard stage and, in the process, set a record for the highest team score ever fired at that distance. With a score of 2,395 - 140X out of 2400 points possible, the U.S. was off and running. The British posted their team best at 2,389 - 136X.

As the U.S. team moved back to the 900 yard line, the news of our score rocketed up and down the firing line. The British team was still firing at 800 yards well after the U.S. team had set-up at 900 yards. The British captain couldn't believe that not only were we finished, but we had just beat his team after they had shot their team's best score. Our 900 yard score was also very good at 2,365 - 104X, 10 points ahead of the British. As with the 800 yard score, our 900 yard score was the best on the line. The wind was beginning to become a factor and the American strategy of completing the team match in as little time as possible was paying off. Some of the other teams required nearly the entire 100 minutes during the 900 yard stage. The U.S. team was completed, packed-up, and eating lunch in less than 48 minutes!

As was customary, the 800 and 900 yard stages were fired in the morning and the 1000 yard stage in the afternoon. We began assembling at 1:00 PM on the 1000 yard mound. Firing would begin in half an hour. The wind had now estab-

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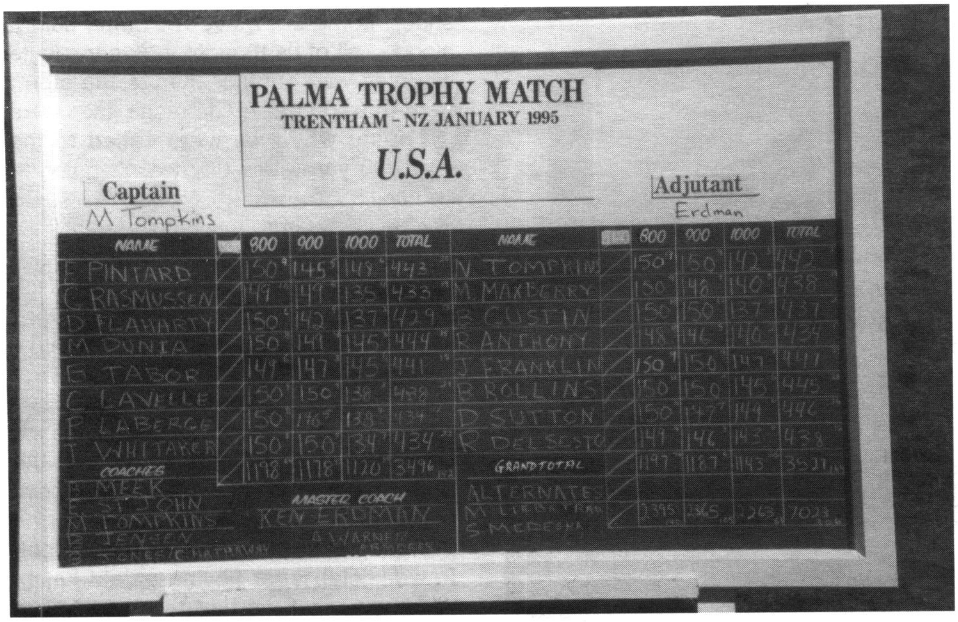
PALMA TROPHY MATCH
TRENTHAM - NZ JANUARY 1995
U.S.A.

Captain
M Tompkins

Adjutant
Erdman

NAME	800	900	1000	TOTAL	NAME	800	900	1000	TOTAL
E PINTARD	150	145	148	443	N TOMPKINS	150	150	142	442
C RASMUSSEN	149	149	135	433	M MAXBERRY	150	148	140	438
D FLAHARTY	150	142	137	429	B CUSTIN	150	150	137	437
M DUNIA	150	149	145	444	R ANTHONY	148	146	140	434
E TABOR	149	147	145	441	J FRANKLIN	150	150	147	447
C LAVELLE	150	150	138	438	B ROLLINS	150	150	145	445
P LABERGE	150	146	138	434	D SUTTON	150	147	149	446
T WHITAKER	150	150	134	434	R DEL SESTO	149	146	143	438
	1198	1178	1120	3496	GRANDTOTAL	1197	1187	1143	3527
					ALTERNATES	2395	2365	2263	7023

COACHES
B MEEK
E ST JOHN
M TOMPKINS
B JENSEN

MASTER COACH
KEN ERDMAN

United States, Day 1 score board

lished itself from the northwest. Like waves lapping the shore, the wind seemed to move in sets. Building, building, building and then a big puff followed by a lull, or worse, a reversal. You could hear the wind change direction from the sounds of the snapping flags. The British team predicted they would catch-up at 1000 yards and possibly pass us by. This was their game and they spent more time in New Zealand in the past two years mapping and studying the winds than any other team (with the exception of the New Zealand team). As the U.S.A. coaches were now busy developing their game plan, I listened to the local Wellington radio station as they updated the interim scores during the regular news. The radio station was obviously pulling for New Zealand, however their reporting was very balanced, giving us credit for our 800 and 900 yard scores shot that morning. The weatherman reported a front was moving in and as I watched over the range it was clear that all the flags were out. Our coaches knew better than anyone that a mere 5 MPH of wind outside of the coaches estimate results in a miss at 1000 yards. Working as a unified coaching/shooting team, we continued to advance our lead on the others. At the end of the first day, the U.S. was firmly in the first place.

First Day Standings

PLACE	COUNTRY	SCORE
1ST	U.S.A	7023 - 305X
2ND	GREAT BRITAIN	6987 - 271X
3RD	AUSTRALIA	6946 - 263X
4TH	SOUTH AFRICA	6932 - 236X
5TH	NEW ZEALAND	6922 - 216X
6TH	CANADA	6863 - 235X
7TH	GERMANY	6692 - 177X
8TH	CHANNEL ISLANDS	6605 - 159X

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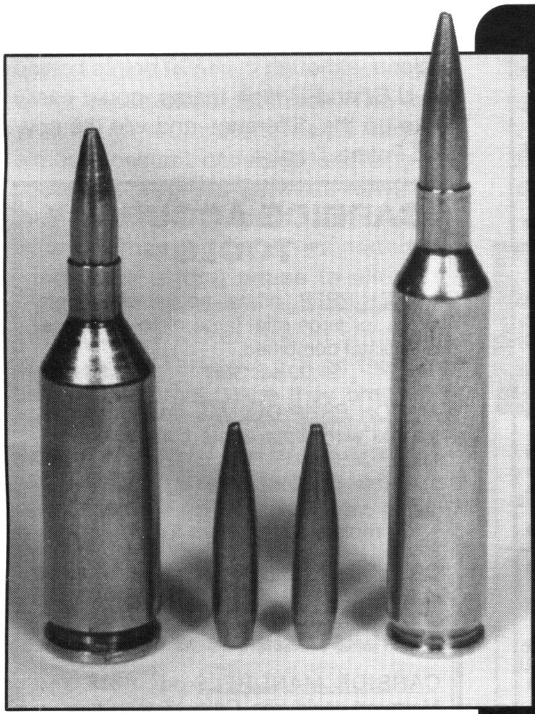

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WINNING SILVER

Continued

Palma Day 2

The morning of Day 2 on Seddon Range

The second day of the Palma Match began dark and breezy. A storm was brewing and the predicted weather front was beginning to make its presence known. The limp morning flags of the day before now stood out boldly, swinging through several directions as the morning's wind decided what it would deal us.

The start of the 800 yard stage was delayed due to sheep in the impact area. It took almost 30 minutes to clear them out! We were getting impatient, "Let's shoot, come-on, move it". Some said it aloud.....all of us thought it. Every minute of delay was another minute the storm front moved closer. The range flags were snapping when we were called to the line: 800 yards this day wasn't going to be easy.

After 800 yards, the British team drew within 28 points. That's just less than 2 points per shooter! Our spirits were high going into 900. Our coaches had proven themselves the day before at 1000 yards. The winds at 900 yards were very unpredictable, changing direction and velocity in an instant. Under these conditions the U.S. team did very well, but so did the British team which now posted a 29 point overall lead.

The team gathered at the Black Powder club after having a light lunch. We knew what we had to do and were ready to do it. Don Rakestraw and Malcom Gilchrist of the NRA along with Kevin Thomas of Sierra Bullets joined us as we discussed our last phase of the match.

This Palma match would now be won or lost at 1000 yards. All the previous matches were symbolically reduced to preliminaries. The wind was roaring from 6 o'clock, with directional changes from 3 o'clock to 8 o'clock. Velocity was estimated to be 25 MPH with 35 MPH gusts.

The team that made the fewest mistakes would win. Australia and New Zealand, although over 100 points behind the U.S. and British teams, could easily make up the difference and win the coveted Palma Trophy.

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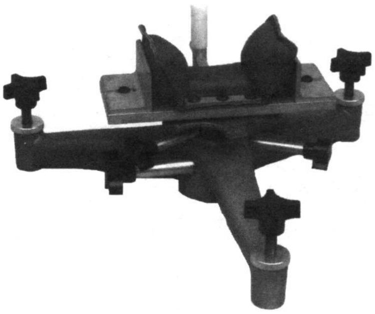

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British head coach Authur Clarke, gentleman, coach, gunsmith, truly a man for all seasons

The Head Range Officer announced that ammunition was available for the team captains to pick-up. The 1000 yard stage had begun. The targets were raised, coaches collaborated on the wind, and we all waited to see if the fickle, swirling wind would stabilize.

No team shot for several minutes. First to shoot was Germany followed by New Zealand. Germany was squadded immediately to our left. New Zealand was squadded on the far left and opposite side of the range from us. The first German shot was a 7 - not enough windage adjustment on the sight. New Zealand's first sighter was an X. This was the wind that they hoped for. The New Zealand team began firing 10s, Xs, 9s with an occasional 8. This was incredible under these circumstances. The local Wellington radio station was carrying almost constant coverage updating the scores in progress between news and music. The British team started with a wide 6 - they too under-estimated the wind. After a long pause to allow the northerly to die down, subsequent to a huge gust, another British shot went down range. This time a 7 on the other side of the target. Were they bracketing the wind conditions or merely under or over estimating it? The British started firing in pairs. With one target down in the pits and one up at any given time it appeared they were chasing the previous and adjacent target spotter as quickly as the pit service would allow. Any shot outside the 8 ring and their entire line immediately shut down and awaited instructions from their head coach.

The American team started last. We picked a condition we had seen before. Northerly winds from 5 to 4 o'clock. Nancy Tompkins fired the first sighter - an 8 at 3 o'clock. The next shot was a 10 at 9 o'clock. We were off and running. Conditions were wicked. We stopped many times, shutting the entire line down because of huge wind gusts and nearly 180 degree changes in direction. We were forced to shoot more pilot shots than we wanted to. What this means is that after the line is shut down, and with no free sighters (i.e., a new shooter) available, one of the team shooters is designated "the pilot". The coaches confer on the sight/wind estimate and the pilot shoots. The other coaches use that pilot shot as their initial sight setting and go from there. In a team match there is no place for individual scores. We all tried our hardest to fire the top score on the team but when called upon we were all ready to fire a pilot shot that very well could be a 5 or 6, or worse yet, a miss. It's been said many times that, "It's better to be the low shooter on a winning team than the high shooter on a losing team".

Our game plan called for us to shoot in known wind conditions within certain defined perimeters. The Trentham winds were not very obliging. It soon became evident that we would quickly be out of time. The 15 to 20 second target service would not allow Richard Anthony and Mid Tompkins to finish their last 7 shots in the 90 seconds left. All the other teams were now finished. The head range officer, stopwatch in hand, was standing directly behind Mid. A crowd of onlookers, comprised mostly of the other team captains, had also gathered in hopes of helping the range officer with his time piece, no doubt. Mid told Richard to fire on 2 adjacent targets. His and the target to the right of his. This is legal provided the official score keeper is notified before each shot. Richard loaded and shot target E8 on Mid's command, reloaded and shot E9, then back on E8, back to E9 and finished with his final shot on E8 after a final sight setting from Mid. With 10 seconds to spare the U.S. team had completed the Match. Richard and Mid lost

Continued on next page

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WINNING SILVER

Continued

only 1 point in those last 7 shots scoring 6 X's.

When it was all over, the British had won the 1000 yard battle. Their total team score at 1000 yards was 2171 - 46X for an excellent average of 135.7 per shooter. The U.S. team was 4th at 1000 yards on day 2 with a score of 2101 - 32X for an average of 131.3 per shooter. Looking at this 1000 yard stage score and X count of both teams and comparing them to our first day, 1000 yard line score of 2243 - 61X reveals how difficult this 1000 yard stage was.

Taking a good honest look at the day 1 and day 2 results shows how hard Great Britain worked to come back and win the Palma trophy. On day 2 they won every yard line. New Zealand and Australia were also on track to overtake us as well. On day 2 the New Zealand team was a strong second at both 800 and 900 yards. They were also second at 1000 yards, a distant second to Great Britain, only a few points ahead of Australia and the United States. On day 1 and day 2, Australia in third place, could have easily moved up if New Zealand or the U.S. let down their guard for even a minute. If there was a day 3 who knows what would have happened? What other leads would of changed or what dark horse would have moved to the lead?

Day 1 Scores

Place	Country	800	900	1000	Total
1st	United States	2395-140	2365-104	2263-61	7023-305
2nd	Great Britain	2389-136	2315-88	2243-48	6987-271
3rd	Australia	2382-125	2359-98	2205-40	6946-263
4th	South Africa	2378-115	2339-65	2215-36	6932-216
5th	New Zealand	2378-113	2332-78	2212-45	6922-236
6th	Canada	2350-113	2358-86	2155-36	6863-235
7th	Germany	2338-91	2273-49	2081-37	6692-177
8th	Channel Islands	2178-80	2108-49	1916-25	6605-159

Day 2 Scores

Place	Country	800	900	1000	Total
1st	Great Britain	2376-112	2315-88	2176-46	6862-246
2nd	New Zealand	2374-98	2292-56	2107-30	6773-184
3rd	Australia	2367-108	2270-56	2105-21	6742-185
4th	United States	2368-108	2258-53	2101-32	6727-193
5th	South Africa	2352-101	2263-53	2064-28	6679-182
6th	Canada	2335-84	2232-51	1971-15	6538-150
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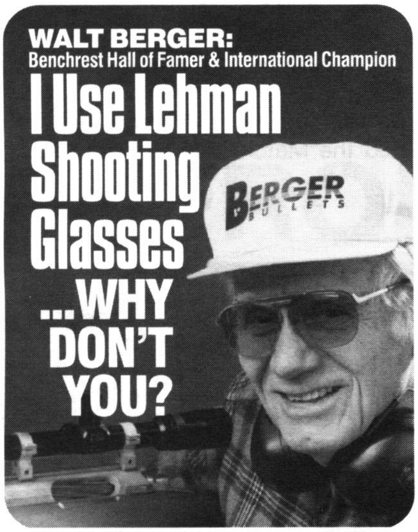

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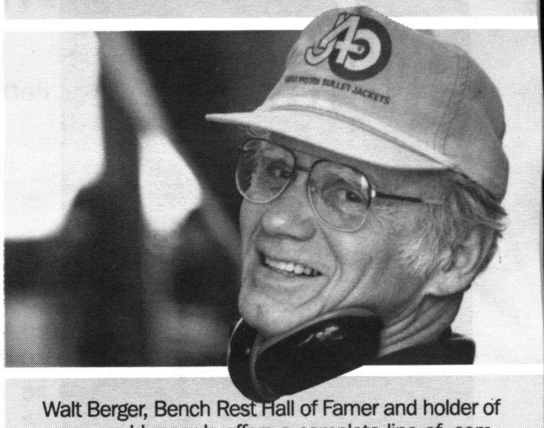

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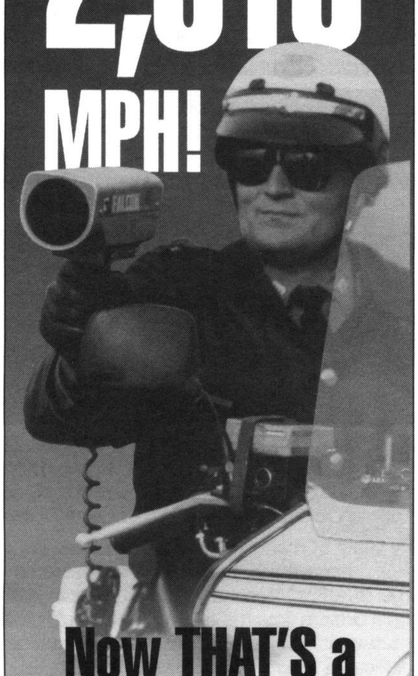

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Many thanks to Sierra Bullets' Kevin Thomas and to the NRA, especially to Don Rakestraw and Malcolm Gilchrist who supported us so well.

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Palma Trophy with British Team in background

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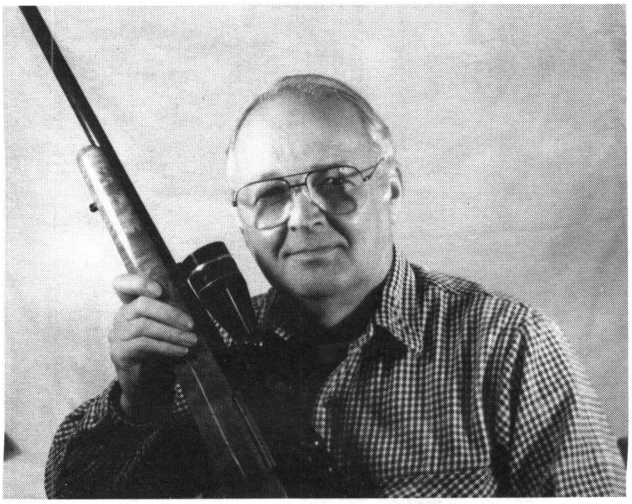
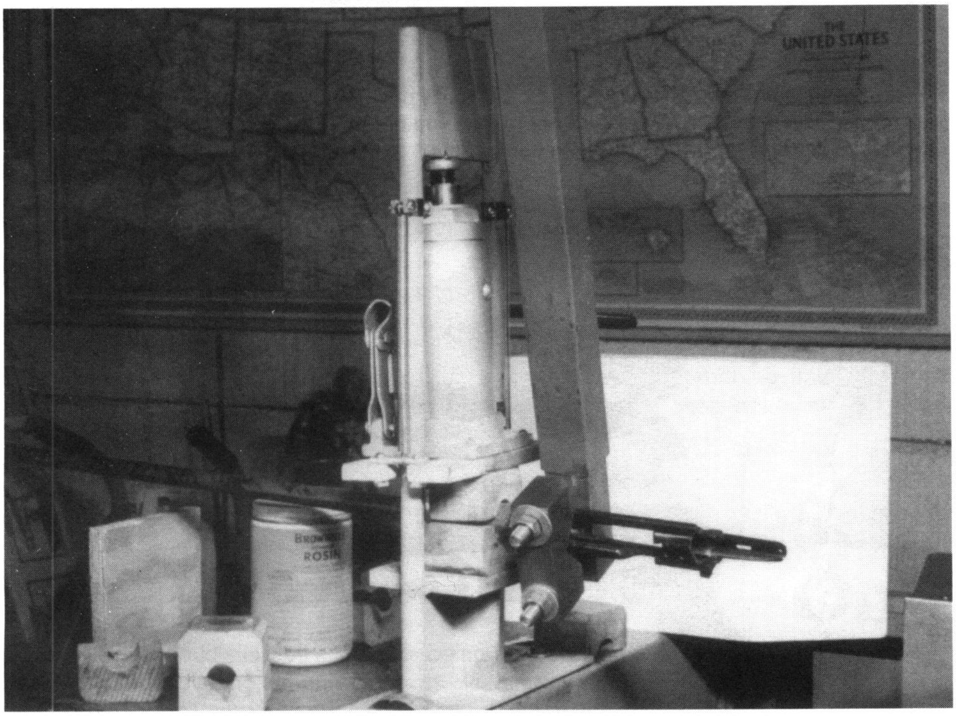


GUN TINKERING: BARREL REMOVAL

by

Bob Jourdan



Barrel vise and action wrench on Mauser 98. This homemade vise gets its barrel clamping power from a six-ton hydraulic jack. The barrel is clamped in wood blocks with powdered rosin added. The action wrench uses cheater bars of various lengths.

All gunsmithing starts at home. It isn't like becoming an engineer or chemist or CPA where one goes off to school and four years or so later is one, stepping right out of college and being recognized as an engineer, chemist, accountant or whatever. Gunsmiths just don't arrive in that manner. They almost always start as a youngster enjoying shooting as learned from their dad, brother or other relative, plinking away at tin cans, moving on to hunting rabbits, squirrels, doves, etc., and then possibly on to big game. Their curiosity leads them into wondering what makes a gun shoot and before long they are disassembling their own firearms, rebedding stocks, maybe even whittling out a new stock, changing sights, tuning triggers, etc. If they develop skills in some phase of gun tinkering, it isn't long before their friends bring their gun problems to them for correction. From that point on, if they aren't careful, they find themselves drifting into gunsmithing of some sort. Many even apprentice in a local shop in their spare time, at no

Continued on next page

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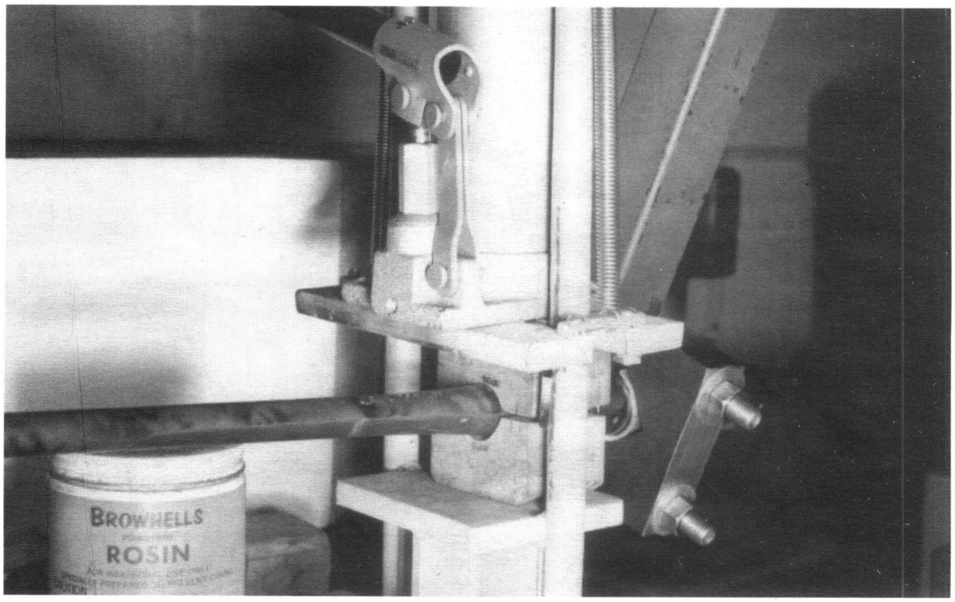
GUN TINKERING

Continued

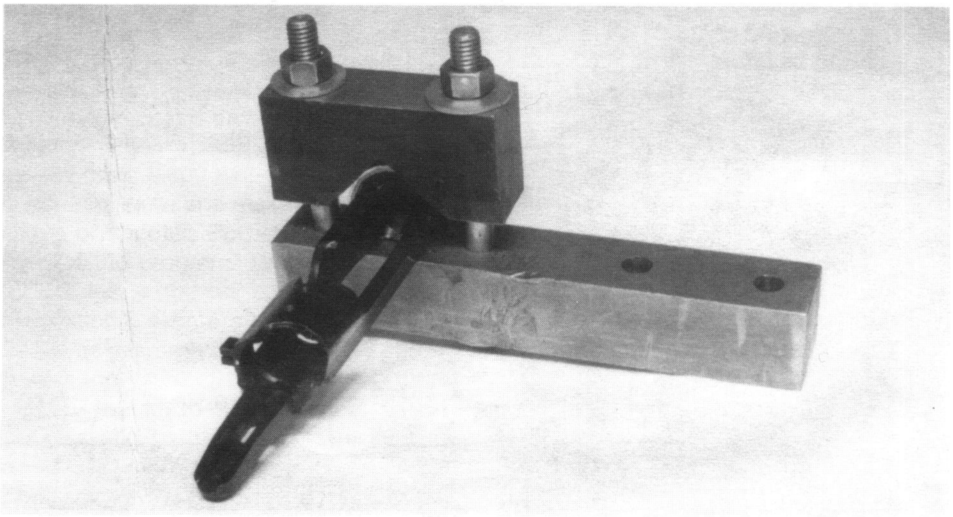
pay.... Then a limited few discover gunsmithing schools and after a couple of years they hang out their shingle as a general gunsmith. But it all started back home by simply being a tinkerer.

The gun hobbyist can become quite good at certain jobs concerning firearms. It is difficult, however, to become very good on all jobs. If he really enjoys handguns, he will be best at handgun repair. If shotguns, it will be shotguns. I was advised early by my now 84 year young gunsmithing tutor, Marion Reed, that if a home gunsmithing tinkerer would limit himself to just the jobs within his basic interest, he would learn enough in 20 years to be very capable in that one field. But, he advised, if you try to take on all jobs you are likely to botch enough of them to develop a bad local reputation long before becoming proficient on your one particular phase of interest. Therefore, if you really prefer lever action rifles, do only lever action rifles for the first few years.

The first work most hobbyists start on is the rifle stock. The installation of recoil pads and sling swivels is followed with learning to glass bed the action and cut out the barrel groove to fully float the barrel. Touching up the finish eventually leads to total refinishing and perhaps on into checkering and even enlaying. Stock work is frequently followed with trigger adjustments and installation, extractor and ejector work, and before long the desire to do rebarreling creeps in. At this point, common shop hand tools will no longer suffice. You are looking right down the spindle of lathe ownership and all the peripheral, associated tools: grinders, drill presses, milling



A close-up of the barrel protruding from the rosin powdered barrel blocks. The hydraulic jack applies the pressure. Blocks do not have to be perfectly contoured to the barrel if several tons of pressure are available.



The Mauser 98 receiver locked in the action wrench. The flat bottom of the action is a great asset when tightening the wrench to the receiver. A V-notch holds against the top of the receiver ring.

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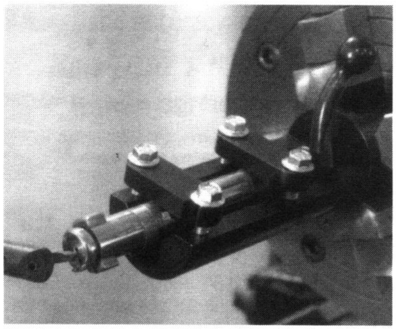

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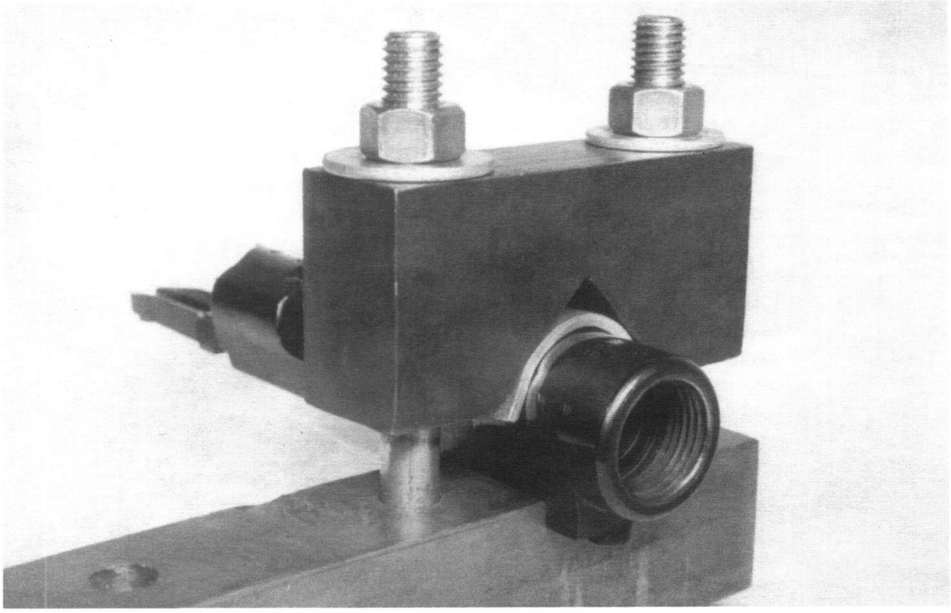

A close-up view of the receiver in the wrench. Note the thick aluminum pad on top of the receiver ring to protect it from marring. This wrench must be drawn tight to prevent bottom receiver corner-bulging of the metal.

machines, dozens of specialty tools, and of course, the all important barrel vise.

Barrel vises and action wrenches are often mentioned only in passing when hobbyists are getting serious about their gun work. Most begin to recognize the need for a lathe, but without a barrel vise the lathe is not all useful. After all, if you thread a barrel it still has to be screwed into the action. And even ahead of that, the original old barrel has to be removed from the action. While there are lots of articles and gunsmithing tips printed to help the home shop hobbyists get started in barrel removal, it is really unreal to start without a proper, well made barrel vise and matching action wrench. Back many years ago when I was beginning to think about doing my own barrels I poured over most all the gunsmithing books and magazines in hope of finding out how I could remove and install just one barrel in my one owned rifle at the least possible expense.... Monetarily, it is bad enough to be trying to raise a pack of kids, put up with the barking dogs and fighting cats, keep food on the table, the rent paid, the car fixed, etc., etc., and also be afflicted with the gun bug. Even though I really wanted another barrel installed, there did not appear to be a way to afford it.

The economy barrel removal methods described in the books and articles left me cold. I studied my barreled action and even made a few attempts at separating the two, to no avail. The rope around the barrel trick with a tension bar, so nicely described by different writers, just did not do a thing. The idea of using a plain bench vise to hold the barrel while using a pipe wrench on the action didn't work, either. So, I looked up all the commercial barrel vises listed in the few gun supply catalogs and knew immediately

Continued on next page

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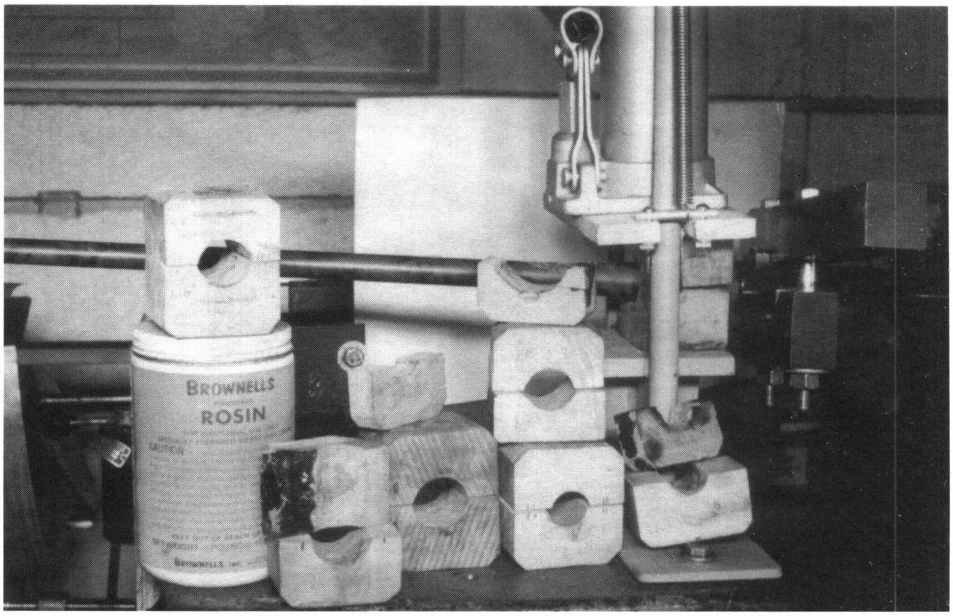
GUN TINKERING

Continued

that I could not afford one. I went back to the simpler gun hobby work, saved my pop cans and finally had enough money to hire the barrel replaced at the local shop.

But the idea of doing my own barreling still persisted, and before proceeding further, I had to have a barrel vise. By visiting a few gunsmithing shops and looking over their barrel vises and wrenches, it became evident that most had been homemade. By reviewing the photos and descriptions of vises and wrenches in supply catalogs, I figured out a simple design that could be cut out by hand with a hacksaw. It used 2" square tubing for the main frame and a fine threaded one inch diameter bolt as a tightener to screw down against the wooden barrel blocks. The entire frame was reinforced where necessary and a friendly neighborhood welder put it together. The welds looked awful, but they were strong.

All the gunsmithing books had many methods of making the necessary barrel blocks, ranging from poured lead blocks formed on the barrel itself to blocks formed with Acraglas, carefully machined brass or aluminum blocks that fit the barrel contours exactly, wood blocks meticulously hand cut to barrel contour and even simple pine boards with V-notches in them. There were detailed descriptions on how to measure barrel diameters at various points and convert this into detailed working drawings for production of perfect barrel vise blocks. This soon took on the aura of major engineering when all I wanted to do was get a positive grip on a barrel in a barrel vise.



Several different shapes of wood barrel blocks are necessary when working with different barrel contours. Rosin in the blocks will prevent their slippage on the barrel when properly tightened in the vise.

There was enough discouragement out there to choke a big mule. But sometimes ignorance is bliss, so I proceeded as best I could. My first blocks were made from an oak log from the wood pile. With a large drill bit, several round files, small powered sanding disks and finally hand sanding, my blocks were completed. They were hard and fairly well fitted to the barrel. By purchasing a can of Brownell's Powdered Rosin and sprinkling it in the blocks, the whole system worked. It was hard to believe the pressure required to hold the barrel and prevent it from spinning in the blocks. My action wrench was a common pipe wrench gripped on wood pads on the action, even though my books showed photos of unpadded pipe wrenches being clamped on perfectly good actions. They never showed photos of the condition of the action after that sort of removal.... My 14" wrench required the addition of a four foot cheater bar, but in the end I succeeded in removing my first barrel. A week later when I attempted to replace it I found my oak blocks, which were made from a very green log, had warped into useless shapes. To replace them I went to a specialty woodworking shop and bought a solid, dry piece of heavy maple, again spending a half day forming the new blocks to fit the barrel. Those blocks worked so well that hard maple later became my standard block material.

During my first few months of learning to remove barrels I found that almost any set of wood blocks would work provided they were loaded with Brownell's rosin and were in a vise that could produce several tons of pressure. I even found that plain pine 2"x4" boards with simple V-notches would do the job if the barrels were not too tight. Sometimes the pine boards would be mashed into useless condition on just one barrel, so I always now use the hard maple blocks. The

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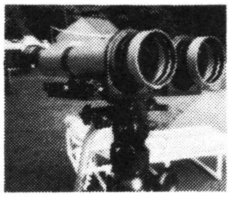

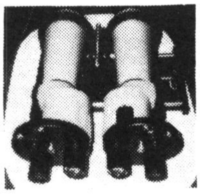

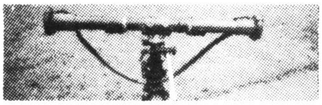

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most important thing I learned about blocks was that they do not have to be contoured very accurately. My dozen or so blocks being used today will not fit any particular barrel in a close manner, but among them one set or another will be close enough to do the job. The key to this is, of course, the amount of pressure the vise is capable of applying to the blocks. If the vise is small, weak, poorly designed, then totally fitted blocks are a must.

My original barrel vise lasted about three years before the one inch screw that did the pressure application finally failed. The minor explosion when the threads stripped rather suddenly could be heard throughout the shop and house, sounding like a .22 rimfire going off. At the time, I was using a three foot cheater bar on the head of the screw.... Even though the screw vise had served well, an improved model was in order and my plans had already been devised. The heart of the new vise is a six-ton hydraulic jack as shown in the photos. The pressure application is really easy and thus far no barrel has been allowed to spin when in the homemade vise. Similar vises are shown in Brownell's Catalog, as well as in others. Prices range from about $80.00 on up. The hydraulic jacks recommended start at a minimum of three tons, but I have no assurance that only three tons of pressure would hold the really frozen-in barrels when long, leveraged cheaters are used on the action wrenches.

My first action wrench was a padded, 14" pipe wrench. This was a very poor set-up, but since it was recommended in several books it is what I tried. By adding a long cheater pipe on the wrench handle enough leverage was obtained to do the job. But it was obvious that the teeth in the pipe wrench jaws could easily bite into the action and claw it badly. By studying the action wrench pictures in the catalogs, and being slightly shocked at the prices, I decided to build my own. The first one was made with a pair of 3/8" steel plates and four bolts. Wood blocks were placed on the action and the steel plates were drawn tight over them. Then a trusty pipe wrench was set on one plate, a cheater bar added, and the pulling pressure applied. Even though it worked, the 3/8" steel plates were badly twisted. I moved up to 1/2" plates that held fairly well, but the whole system was clumsy. Before long I had to purchase some really heavy metal, a 1 1/2"square, 9" long bar and a 2"x1 1/4"x4" block to make a wrench for all occasions. A V-notch was hacksawed into the block and holes were drilled for the 1/2"x6" take-up bolts. Since a 9" handle is too short for proper leverage, a stalk of 1 3/4" square tubing was slipped over it as a cheater. The standard cheater is about two feet long, but a six foot reserve cheater is necessary for some barreled actions. And I might add that on two occasions over a period of several years even the long handle failed to pull an action.

Some commercial wrenches are designed to slide onto certain actions, being cut special for the fit. These are not completely satisfactory because the actions and wrenches don't fit together tightly and when torque is applied by way of the wrench handle and cheater bar, the full pressure is applied only on the edge of the flat bottom of the action when flat bottomed actions are the case. This results in compressing the corner of the action, bending the steel, and severely damaging it. The action then will not drop back into a close fitting stock without grinding off the bulged-out steel. The moral of this story is that all action wrenches must be drawn very tight

Continued on next page

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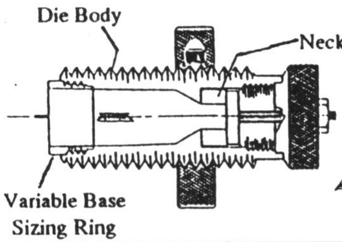

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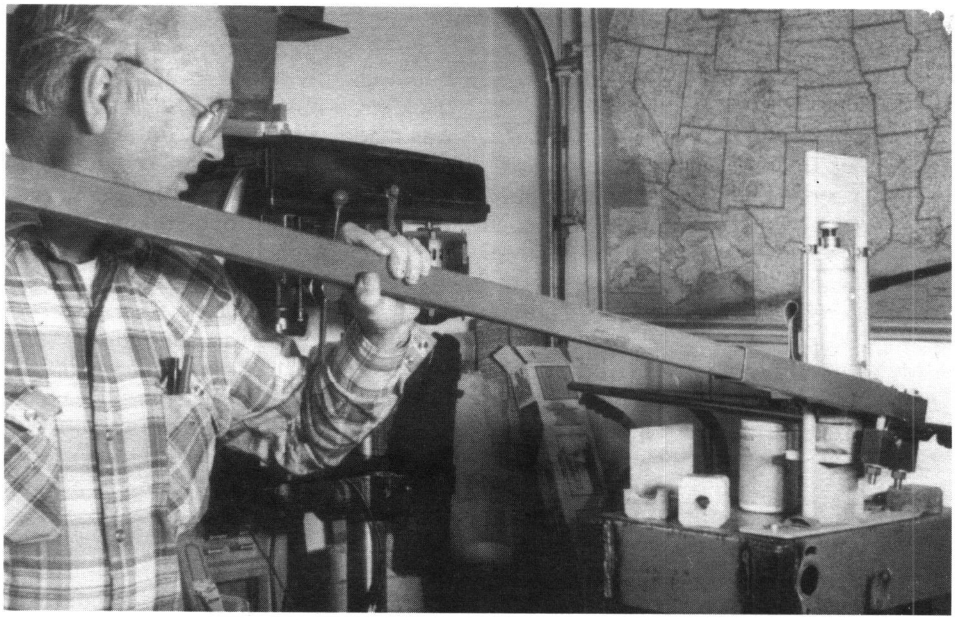
GUN TINKERING

Continued

around the action to spread out the pressure and prevent compression damage on any corner.

Actions that can't be unscrewed from a barrel require special work. In my earlier days I tried the "old wives tale" of using penetrating oil to loosen the action. By soaking the barrel-action joint thoroughly and leaving it overnight, the penetrating oil was supposed to work its way into the thread and loosen it. Great story, totally impossible. A locked-up, tight thread has no opening to allow oil, water or air to enter. There are only two ways to separate these barrels and actions: heat or cut.

The first and easiest method to try on a frozen thread that cannot be parted with the longest wrenches and tons of vise pressure is heat. The trick is, of course, not to over-heat. This could ruin the action, so great care must be exercised. A reasonably simple heating rule would be to bring the heat up to a point just beyond being able to touch the metal without getting burned. This small amount of heat will cause any internal thread compound to soften and will expand the action receiver ring ever so slightly at the thread. This amount of heat is not much more than occurs in a rapidly fired rifle in perhaps a 10-shot string. This heat is commonly applied with a heat torch, playing the heat over the receiver ring, while pulling on the action wrench with a long cheater. The wood barrel blocks will burn a little, but that is part of the price to be paid to remove frozen barrels. The pull should be applied with a rocking motion. If all goes well, the action will suddenly release and you are home free.



A six-foot cheater bar at work on an old military action. The barrel vise should be anchored to the center of the earth...or better!

The second method is more involved and requires a lathe. Cutting the frozen barrel loose does not mean cutting it off the action. When a barrel has been set in an action too tight, it compresses the barrel steel at the shoulder where it joins the receiver face. This compression can be enough to see by eye, but can always be found by measuring with a micrometer. This bulge will extend about .100"-.125" from the receiver face. The action must be stripped of all parts, leaving only the receiver on the barrel. The barrel is then placed in the lathe through the spindle, leaving the receiver out from the lathe chuck far enough to allow work to be done near the receiver face. Then with a cut-off tool set to rub, but not cut, the receiver face, use it to cut the swelled barrel metal away. This cut should not be deeper than the minor diameter of the barrel thread. At this point you should be able to see into the receiver thread just slightly, and with a sharp pick some loose metal can perhaps be scratched out of the semi-visible receiver thread. Next, remove the barrel and receiver from the lathe and place it in the barrel vise and remove the receiver in the normal way. I have not known of a barrel and receiver failing to come apart by using this method, but there undoubtedly have been a few. Those few would be unsalvageable except by cutting off the barrel, boring out the remains and rethreading the receiver. This would result in a thin receiver ring and is usually not recommended.

Installing the action on a new barrel is about the same as the removal of a barrel. The major difference is in not using a cheater bar to tighten the action on the barrel. The barrel must be clamped in the vise blocks tight enough to prevent spinning. Then the action wrench is fitted to the action and the action is

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screwed on. When it is fully turned up and bumps the barrel shoulder a sharp wrist-snap is enough to set the action to the barrel. If both the receiver face and barrel shoulder are absolutely true and square, this wrist-snap setting will lock the action and barrel together so tight that a wrench will be required to part them again. Once they are hand-tight, the wrench is used to draw them together in a final set. Usually an index mark on the receiver ring will show a movement of 1/8" to perhaps 1/4" on the circumference to bring the joint tight. Books will tell you to torque the action to 60-65 foot-pounds. Almost no gunshop uses any form of torque wrench to verify this. In fact, the benchrest crowd commonly change barrels at the range with very simple barrel vises C-clamped to the edge of their shooting benches and action wrenches that are no more than L-shaped bars 8"-12" long inserted into the action loading port. They bump the bar with the heal of their hand to unscrew the action. I doubt that many hard used benchrest rifles ever have actions and barrels set tighter than perhaps 20 foot-pounds. There is no need to air hammer barrels and actions together.

A flat bottomed receiver is easier to deal with than round receivers. The normal square, flat bottom gives an excellent surface to tighten a wrench against. A round receiver must be gripped about like a round barrel. Wood blocks are cut and fitted around the receiver ring and clamped between two heavy steel plates drawn tight with two or four bolts. Rosin has to be sprinkled in the wood blocks to prevent slipping on the receiver. Then a pipe wrench can be closed down to grip the thickness of one steel plate, a long cheater bar installed on the handle, and the pulling can commence. The two plates must be extremely tight on the blocks to prevent slippage.

Since round Remington actions with separate recoil lugs clamped between the barrel shoulder and receiver face are the most common actions around, a gun tinkerer-hobbyist-gunsmith is ahead of the game if he purchases a special tool to align the recoil lug. The tool is the Kleinendorst Remington 700 Barrel Tool, sold through Brownell's, Inc., 200 South Front Street, Montezuma, Iowa 50171. The cost is about $25.00. This tool is held to the receiver ring by an Allen head screw in the front guard screw hole. The front of the tool extends beyond the receiver ring and is slotted to hold the recoil lug in position when tightening the receiver to the barrel. Without this tool the twisting of the receiver against the recoil lug will most often turn the lug out of alignment when fully set. The canted lug then won't fit the stock. You have to loosen the barrel and try again...and again....

The same barrel tool can also be an assist in removing the action or receiver. A wood block can be cut to fit over the tool and tool screw head and this block can no longer slip on the round receiver. Clamp the blocks tight and they won't slip even with full, long leverage on the wrench handle.

Removing and installing barrels is an

Continued on next page

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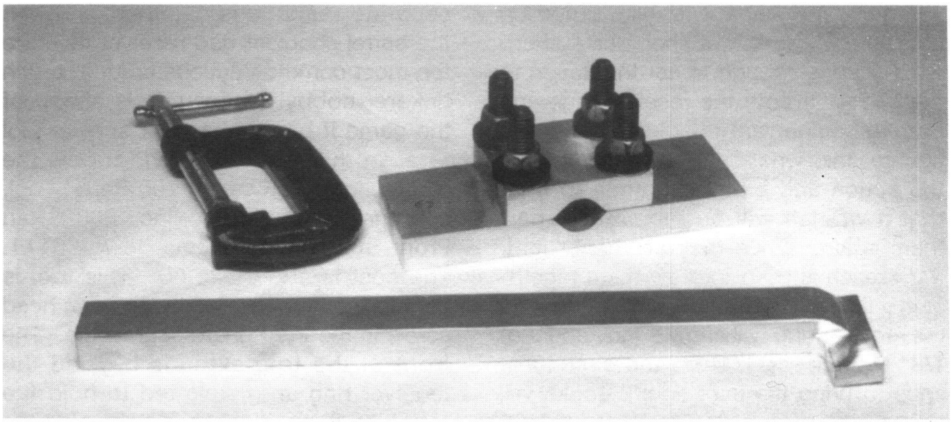
GUN TINKERING

Continued

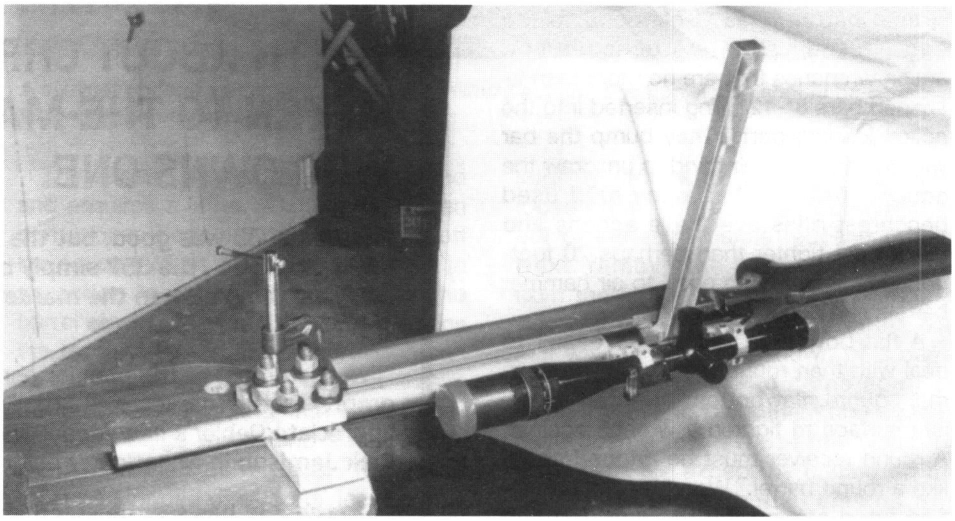
intriguing job. Some come right off. Others will test the mettle of the strongest believers. But by having the right equipment a home shop tinkerer can convert any rifle from a one caliber, one use firearm to a switch barrel model offering as many different calibers and uses as might be desired. A standard .30-06 bolt face, long action rifle can have barrels fitted and switched from a 6mm Remington varminter to a .25-06 long range medium game caliber, a 6.5x06 wildcat, a .270 or .30-06 general big game number, a wildcat heavy game .338-06, or a hard hitting .35 Whelen, just to name a few. If you own a short action you can change barrels from the hot .22-250 to the .243 Winchester, the .243 Ackley Improved, the 6mm-284, the neat little .250 Savage, a 7mm-08 and others up to something like a heavy bullet wildcat .35-08.

This would lead to lots of year-round shooting while owning only a couple of actions...plus the gun tinkerer's tools called a barrel vise and action wrench.

Have fun. Keep shooting.



Barrels don't have to be air-hammered on. This simple benchresters vise, wrench and C-clamp is all that is necessary to remove a barrel from a benchrest rifle that is normally fired several thousand rounds per year with chamber pressures often exceeding 60,000 c.u.p.



Here is a benchrest barrel removal job under way. The vise is clamped to a stool. A bump on the wrench handle with the heal of the hand is all that is required. Scopes are normally removed first....

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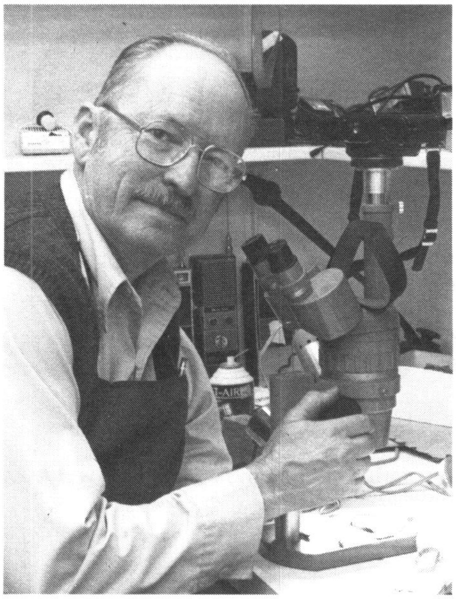

Dear Dave:

Enclosed are photos of the BR-50 RF project to improve accuracy and raise scores. This is all new stuff, and was held secret prior to patent applications which we have just aborted due to the International rules changes. It is now free for anyone who wants to work this hard. We had several goals to accomplish which we actually did with this design.

One was to purge out the barrel debris left by the RF powder residue and, second, to control the reduction of velocity to give optimum speed for minimum wind deflection.

The other goal was to accomplish the above without sacrificing any inherent accuracy the barrel or rifle possessed. Before and after trials at each stage did not reveal any reduction of accuracy and, in several cases, an *increase* was noted.

All of this was being carried out with the intention of making the impact point of the bullet the same to compensate for velocity variations or differences between high speed and low speed ammo. This was also accomplished.

We knew we could extend RF barrel life if the debris could be blown (purged) out of the barrel somehow. We tried and published how we puffed compressed air through. A self-contained system would be much more practical. Our idea was to bleed some of the combustion gases into a reservoir and then release (puff) this gas out the barrel after the bullet had departed thus blowing out the loose dirt.

Starting from scratch, we decided to sacrifice an old Anschutz Junior Model 64 and commence drilling holes into the bore and measuring pressures (*Photo 1*). We started about an inch from the muzzle and not having the slightest idea of what pressure to expect, we started with a 2000 lb. check valved gauge to capture whatever there was. After several shots, we noted no motion on the needle. In *Photo 2,* we moved further back and still no pressure sign on this gauge.

We then changed over to the 160 lb. check valved gauge and noted a little twitch on the needle. Down the barrel we moved and drilled and tapped in again (*Photo 3*).

As an aside, we had several problems to solve — one was drilling into the barrel bore without creating a bad burr, which would surely degrade accuracy, and the other was to not reach a point where the gas pressure would extrude off the base edge of the bullet. I started to think back to the shortest barrel 22 RF I could conceive of and it was my little 22 S&W kit gun with a 2" barrel. The exit pressure does not damage those bullets! A clue. Thus, we kept moving an drilling toward the breech until we were 2-1/2" from the face of the breech (*Photo 4*).

At this point, we recorded abut 50-80 lbs. pressure, and plumber style, we screwed together a reservoir under the barrel (*Photo 5*). This combination actually purged quite nicely.

Then, we found the down side after considerable firing. RF powder gas is very dirty and the exhausting gas from the reservoir through the small vent hole (.062") into the bore caused a carbon buildup on the opposite side of the bore, causing bullet interference. (Bore scope observation). Easily cleaned with a little steel wool.

A possible correction to this carbon buildup would be to have ports opposite each other and let the gases meet in the center. Opposite chamber.

This was difficult to do with the 64 Anschutz, but we had the new 2007 Model that had the easily removable, clamped-in barrel, an ideal research action. Just slide in, head space against a gauge and clamp. See *Photos 6 & 7. Photo 8* shows the collection of test barrels and the original synthetic stock that came with the original 2007.

I purchased the 2007 rifle with the assumption I would be getting the advertised stock shown in *Photo 9* and inletted with the steel hardware as per *Photo 10*.

During this period of research, I had a personal visit by Dieter and Jochen Anschutz, father and son, who were my house guests for several days. They were quite interested in my work and results and not too impressed with the synthetic stock their agent had installed on my 2007. When they got home, the illustrated BR50 stock (*Photo 9*) was immediately sent. Important to accuracy are the center steel bedding rails (*Photo 10*) which were left out of the synthetic stock and which I made up and installed myself (*Photo 11*). That Anschutz dense wood stock BR50 is superior to the Synthetic USA stock and also cuts the groups in half. Don't accept anything less than the original. The mounting hardware is magnificent.

Getting back to my purging requirements, I took an old Anschutz barrel and machined it back far enough so that a sleeve with gas chamber could be slipped over the barrel stub and into the action for clamping. See *Photos 12 and 13* for the sleeve and space inside between the "O" rings for the reservoir. The slit down the side is for allowing clamping on the barrel stub with the action clamp (*Photo 14*).

We had another problem to solve. *Photo 15* shows the conventional extractor slots on the end of the barrel and a damned nuisance to machine and posi-

Continued on next page

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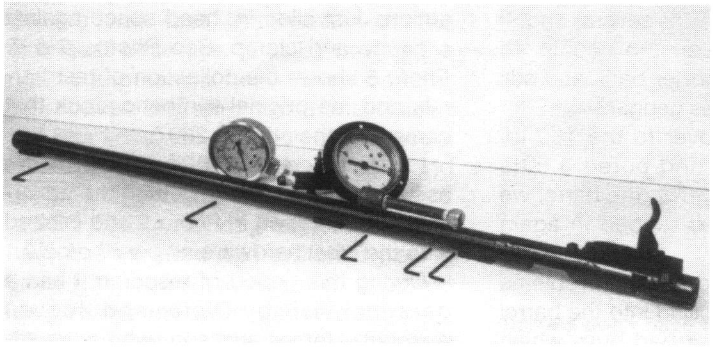
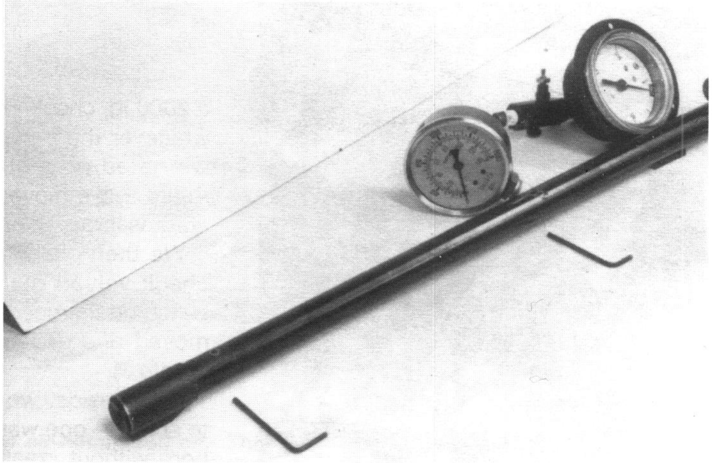
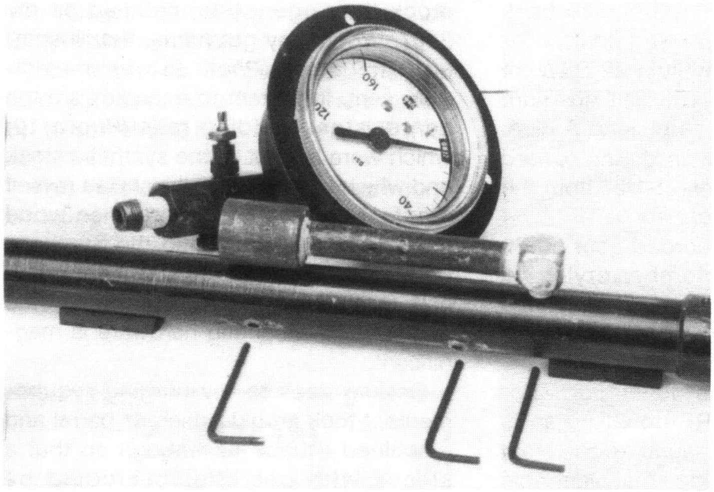


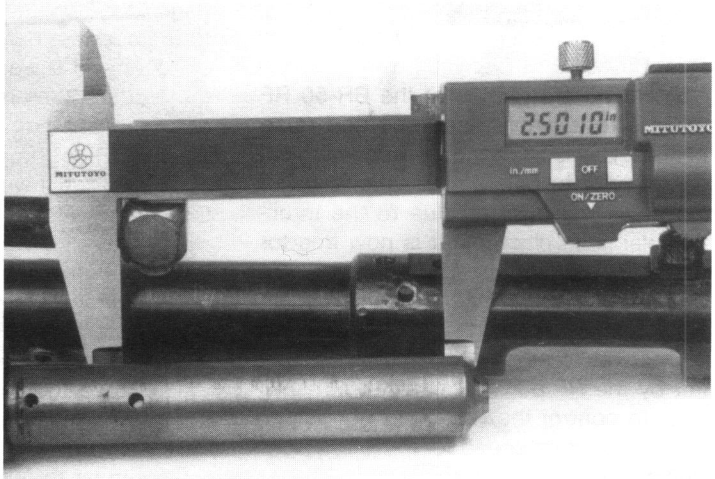
#1 Anschutz 64 with high and low pressure gauges and Allen wrenches pointing to test holes along barrel.



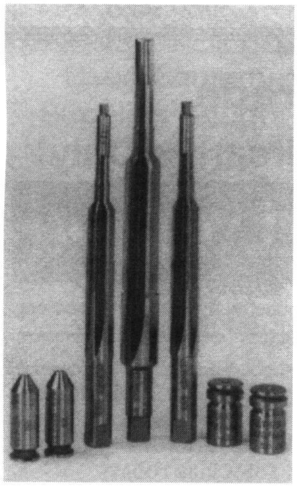
#2 Moving further toward the chamber.



#3 Low pressure gauge finally got a reading. The reservoir is 2-1/2" from the breech to get enough pressure.



#4 Hole for 90° fitting drilled 2-1/2" from end of barrel.



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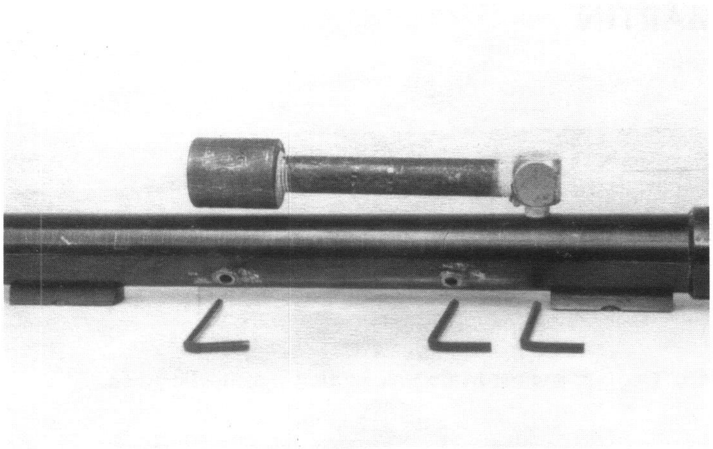
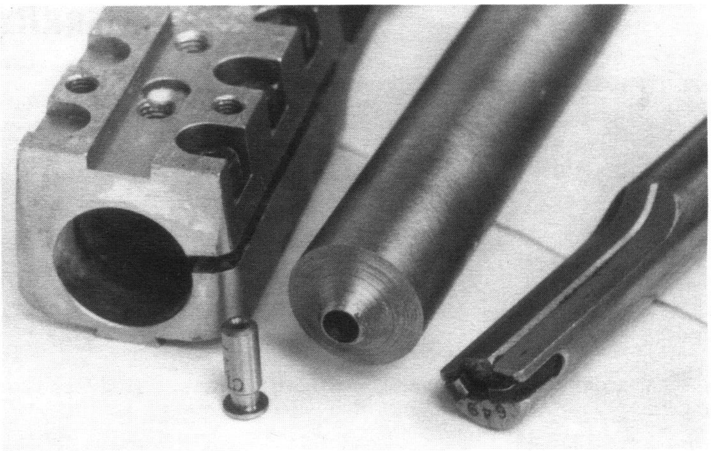
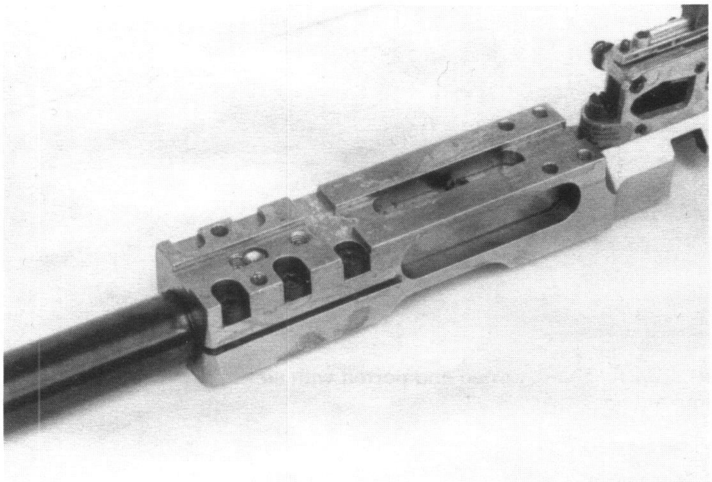


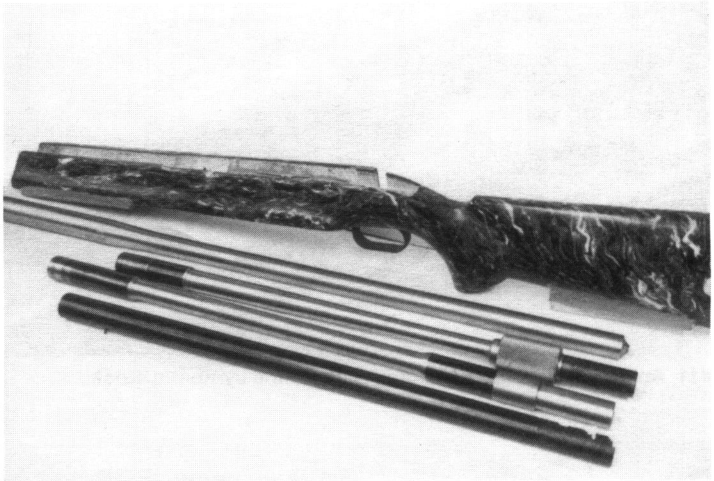
#5 A few pipe fittings created the puffer reservoir.



#6 Very simple to assemble barrel to action and head space.



#7 Three screws securely clamps action to barrel.



# 8 Synthetic stock supplied and accumulated experimental barrels, including a new Shilen match barrel.

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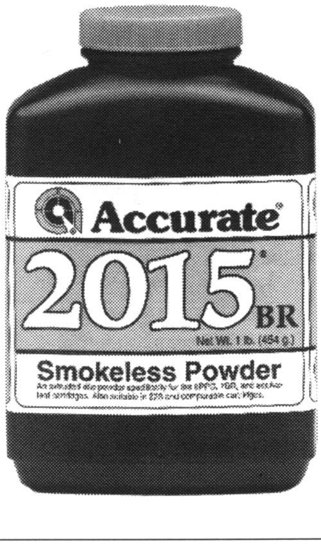

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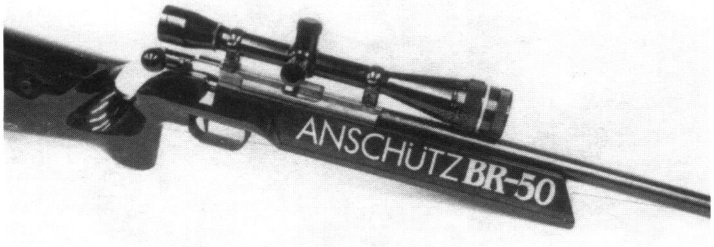
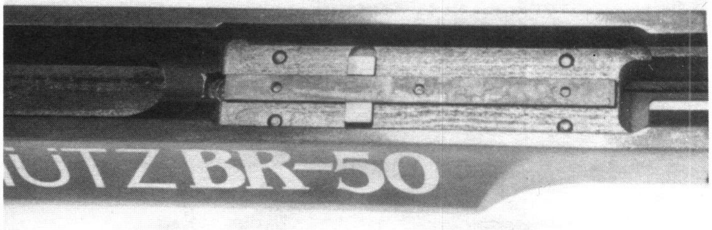
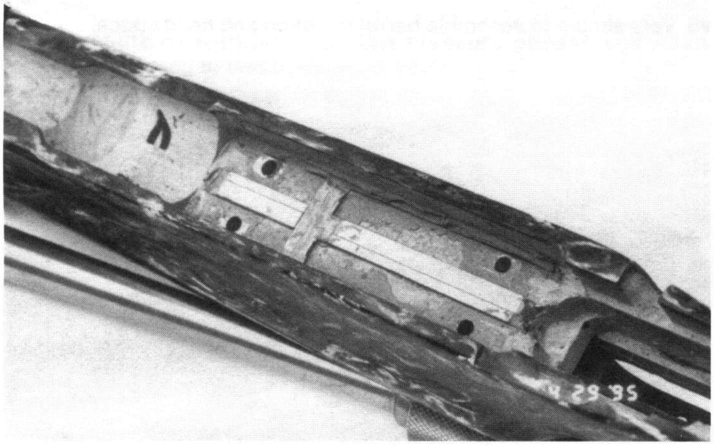


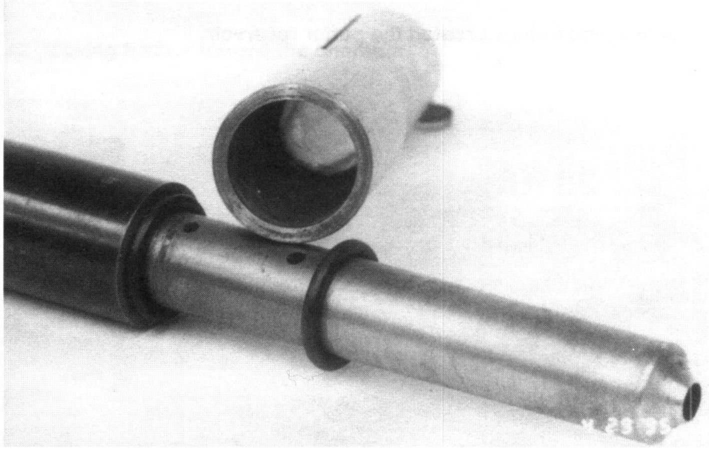
#9 The stock we thought we were getting and was later shipped to us.



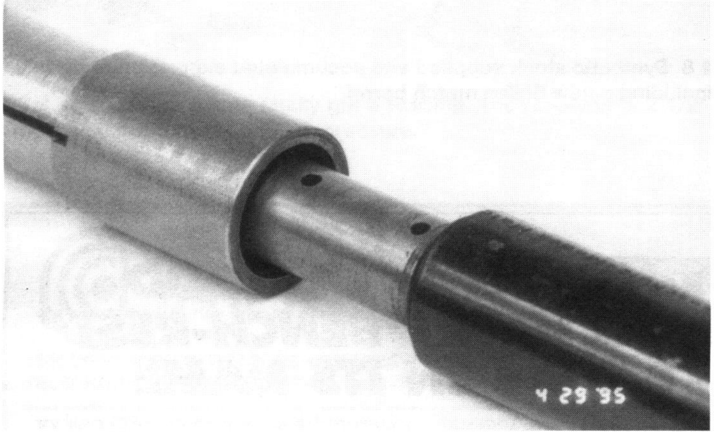
#10 This bedding hardware was missing in synthetic stock.



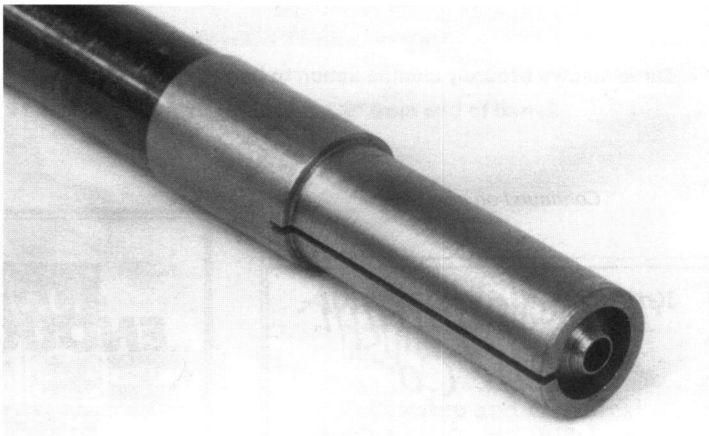
#11 An attempt to make bedding rails for the synthetic stock.



#12 Barrel shank turned and ported with sleeve that will slide over it into action.



#13 Sleeve going over "O" rings, creating reservoir for gas.



#14 Aligning the slit with clamping slot on action permitted head spacing and holding barrel securely.

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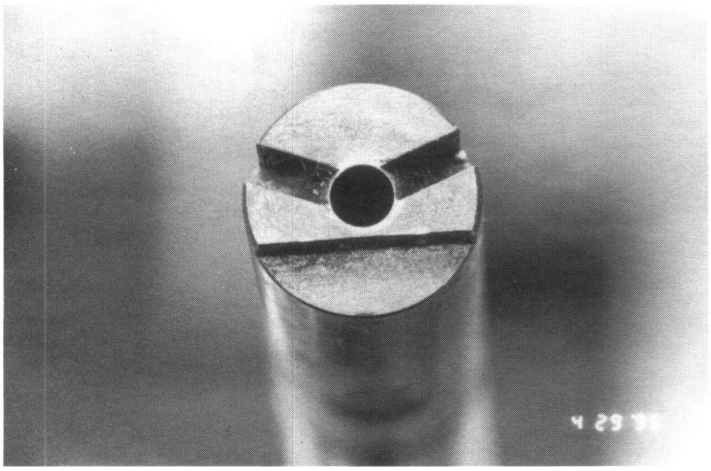
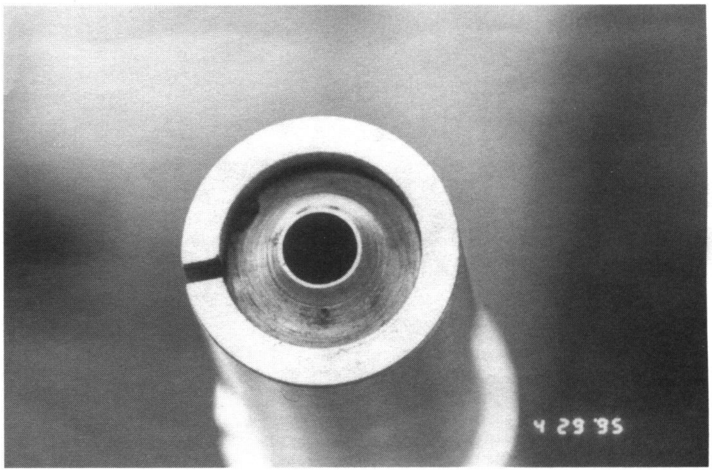
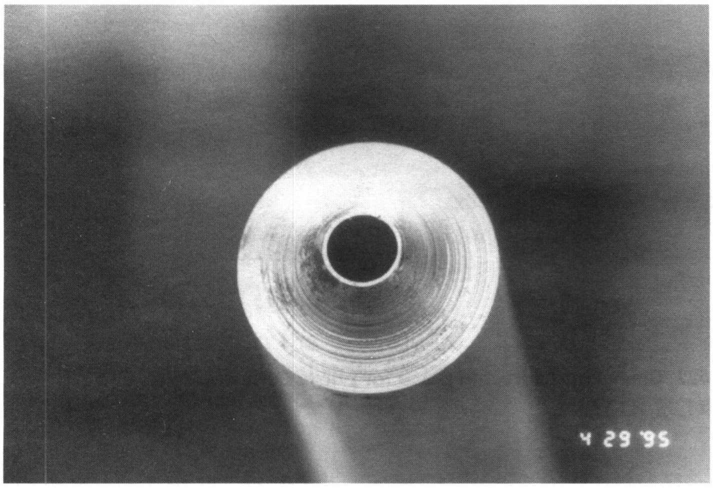


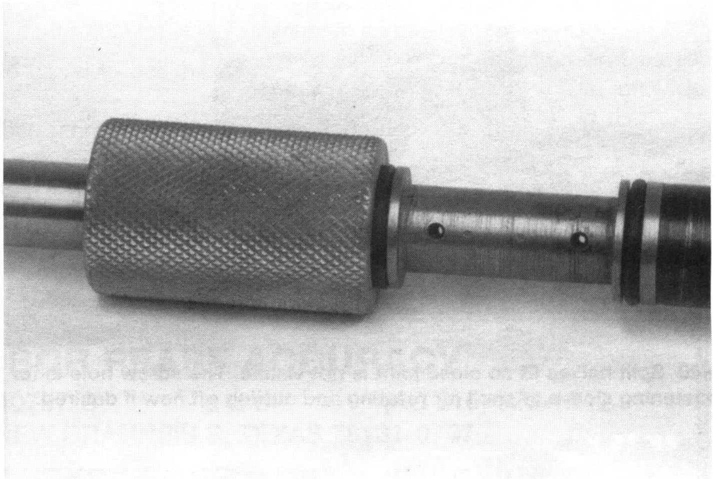
#15 Conventional extractor slots in end of Anschutz barrel.



#16 Simple concave radius on end of barrel permitted extractors to function with split sleeves over turned-down barrel.



#17 Full size barrel stub worked perfectly and could be rotated to best position.



#17A 5/8" recess and eight 1/16" holes with sleeve and "O" rings.

Continued on next page

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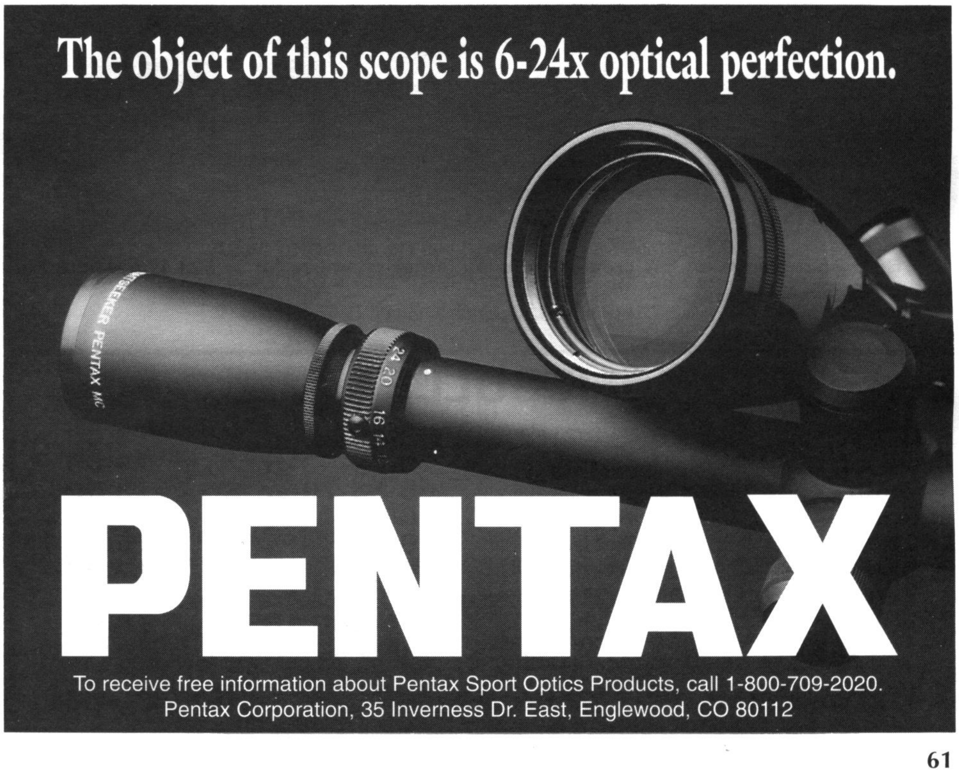
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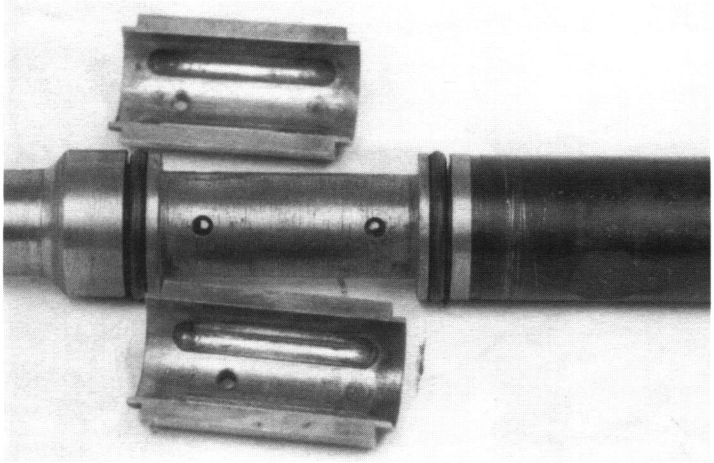
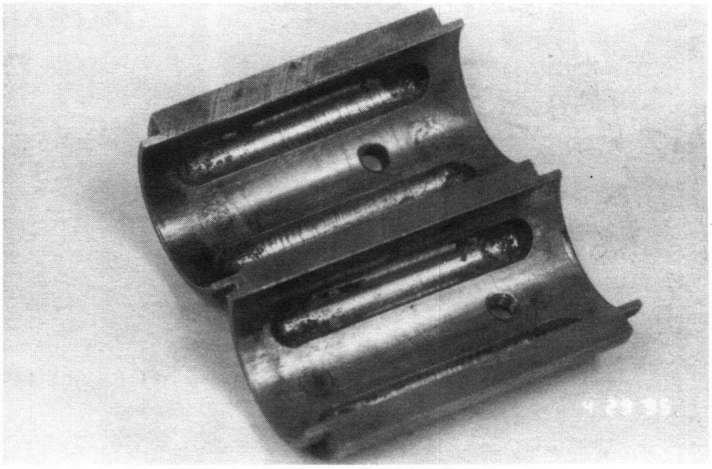
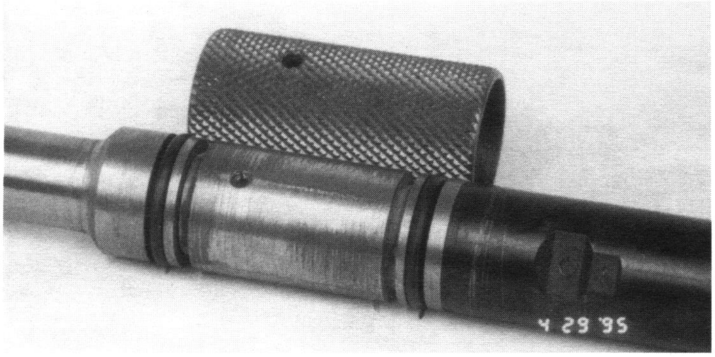


#18 Precise split shells that fit into recess and direct gas from one end to other.



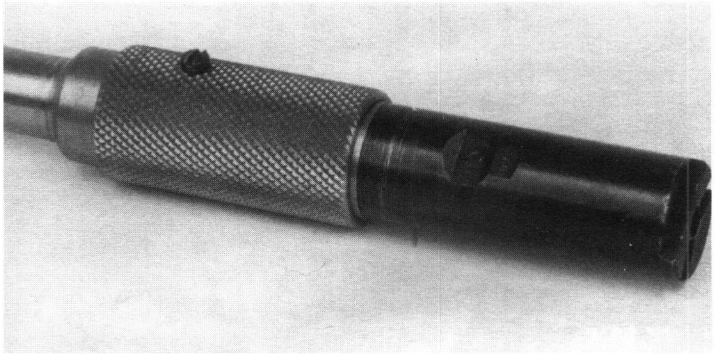
4 29 95

#19 Lots of fun machining these grooves.

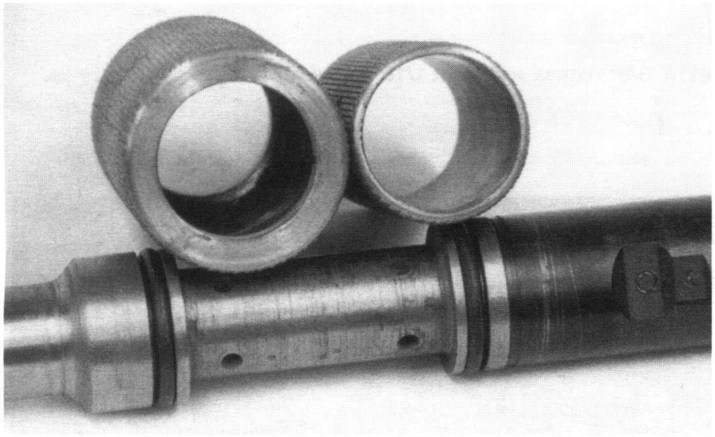


4 29 95

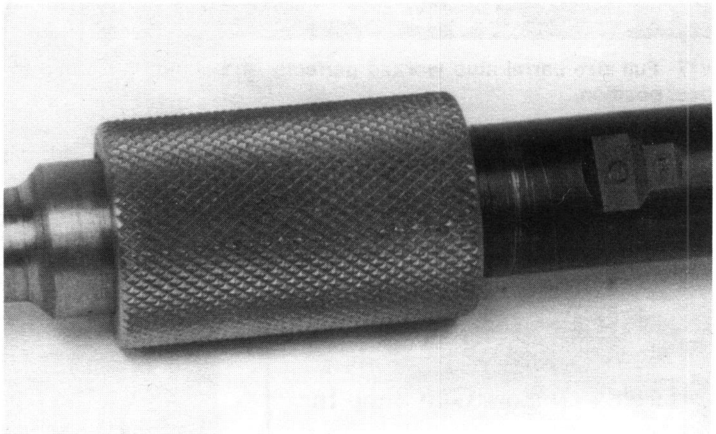
#20 Split halves fit so close joint is not visible. The screw hole is for fastening sleeve to shell for rotating and cutting off flow if desired.



#21 Sleeve and screw in place for purge control.



#22 Bored-out sleeve on left created an even larger chamber for slower velocities.



#23 Large bored-out sleeve in place.

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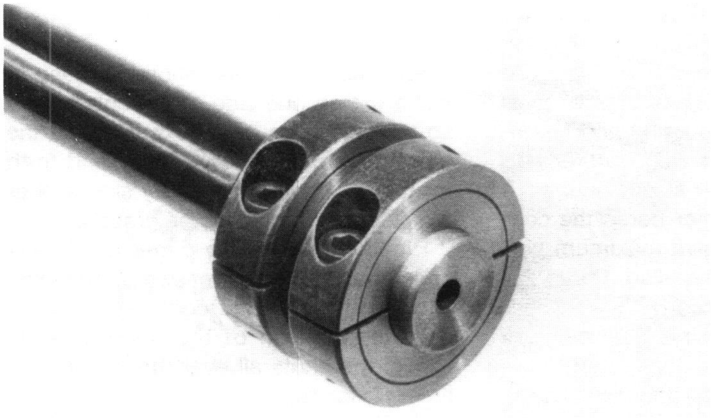
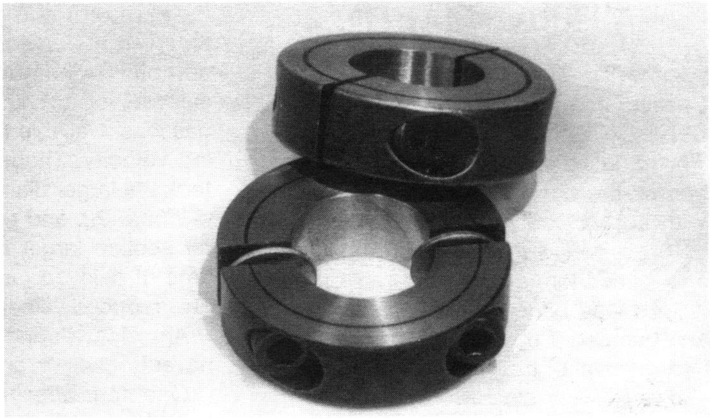


#24 Bored-out shaft collars.



#25 Installing spacers between halves before boring allows clamping action when removed.

MERRILL MARTIN

Continued

tion each time we changed things. Why, we asked ourselves, would not a shape as in *Photos 16 and 17*, work just as well to support the case head and allow the extractor to grab the rim? No reason, they worked perfectly. *Photo 16* was with the clamped sleeve and *Photo 17* the full diameter barrel. This radiused curve on the barrel end also permitted another thing not available to the iron sight shooter. We could mark, and index rotate the barrel through any quadrant to find a position it liked best for accuracy. Rotating the barrel also moved the rough spots in the bore to another location. A light coating of the Acetone-Rosin dip solution used on the 22RF bullets applied to the degreased surface of the barrel shank and action bore really precluded any pins or screws to prevent slip after the action is clamped on the barrel.

With the integral chamber design (*Photos 12, 13 and 14*), we started with two ports opposite each other and got the purging, but very little velocity drop. We then drilled another pair of holes about 7/8 of an inch down the barrel with the idea of bypassing the gas pressure around and ahead of the bullet, as it traveled forward; thus purging and reducing velocity. It worked! But, not as much as desired. I was using .062" holes. To double the area, I went to .090" on the first pair of holes and that took the velocity down about 100 FPS — but another problem — .090" was too large; it picked up lead. We required two sets of .060" and 4 holes around the barrel to get the volume.

This 54 barrel was then retired and we took one of the original 2007 barrels to experiment with, and I sent them to Barrel Scan to see which had the best potential. I didn't want to use the best for butchering up with all my holes, etc.

We dreamed up an idea where we could actually turn on and off this gas diversion and purging system.

Just ahead of the action and barrel shank we machined a recess, or wide groove, approximately 5/8" in diameter and an "O" ring groove in each and for sealing when a close fitting sleeve was slid on (*Photo 17A*). All together, 8 holes were drilled into this recessed area.

Continued on next page

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MERRILL MARTIN

Continued

Spacing and indexing 1/6" holes exactly opposite each other was not easy. In *Photo 18*, you can see through and across the barrel. I pre-drilled half way with an 1/8" drill and finished with the 1/16", reducing the danger of breakage. To reduced formation of a burr, I forced a slug of lead under the area to be drilled and bumped it up real tight. After drilling and removal of the slugs, the bore scope showed a very clean, sharp edge to the holes.

One thing I would change on doing this over would be to slant the holes 20° to 30° forward so that the powder gas fouling would not have a tendency to form on the downstream edge.

One really precise addition was the two split shells that had the half round grooves — *Photo 19, 10* and, in place, *Photo 20*. These fitted very precisely so that the knurled sleeve would slide over and the screw in *Photo 21* would engage the split shell and cause the shell to rotate, thus opening or closing the port holes to turn the devices on or off.

Groups were a little tighter with the ports open, purging the gas and slightly lowering the velocity.

Taking this to the maximum, we removed the split shells creating a larger combined chamber and slid a knurled sleeve over it. Thus, a greater volume of gas was available for purging and reducing velocity. Then, we went further and took the larger diameter sleeve on the left of *Photo 22*, and counter-bored the center section larger to give maximum volume of delayed gas. Installed, *Photo 23*. This reduced velocity nearly 150 FPS.

Amazing, during all this the accuracy never got worse, only a little better!

One item applicable to all RF rifles is fine-tuning above and beyond the above-mentioned compensation. This is for an individual load or rifle characteristics. It's usually done with an add-on muzzle weight or graduated device.

Since the Anschutz rifles have the iron sight barrel extension, they are a natural to work with. Some shooters refer to these as bloop tubes. With scope sights, the extension is redundant, but the added weight is an aid toward tuning. I've added a similar weight in the form of split shaft collars (*Photo 24*) and got the same result as the Bloop Tube without the overhang. Anschutz has these barrel weights available to take the place of the bloop tube. I've found slightly tighter groups not having to shoot the bullet through the turbulent gas of the extension.

An interesting observation has been to mill a flat on one side of the split collars so that they can be indexed around the barrel as well as moved back and forth for tuning. Having the heavy side at 9 or 3 o'clock has closed some groups.

Playing this tuning game can really consume a lot of expensive ammo. You know you are on the right track when a certain position of the weight really sprays the shots all over the target. This tuning is for real.

I believe the big breakthrough will come from the shortest legal length rifle barrel mounted on a recoilless set of rails into the stock similar to the Feinwerkbau .177" air rifles which are really spooky to shoot. About a 1/4" free travel will have the bullet out of the barrel before it can be influenced by the bench bags or grip. You've got to shoot one to believe it.

Yours truly,
Merrill D. Martin © 1995

P.S. The International rules do not permit any holes perforating into the barrel bore. Properly done, it does work well.

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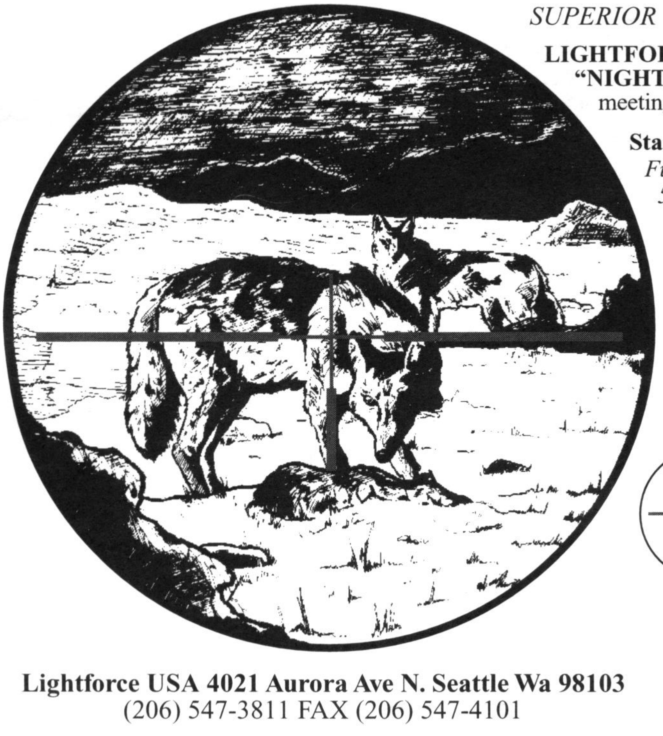

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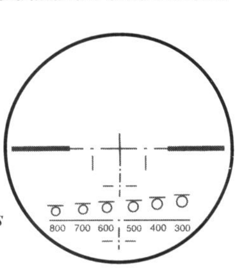

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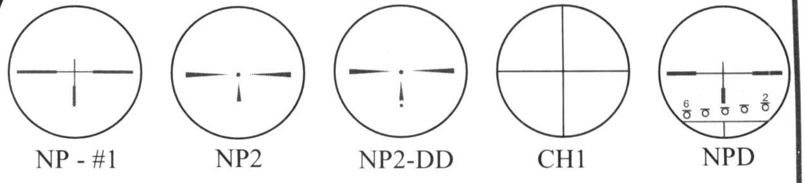

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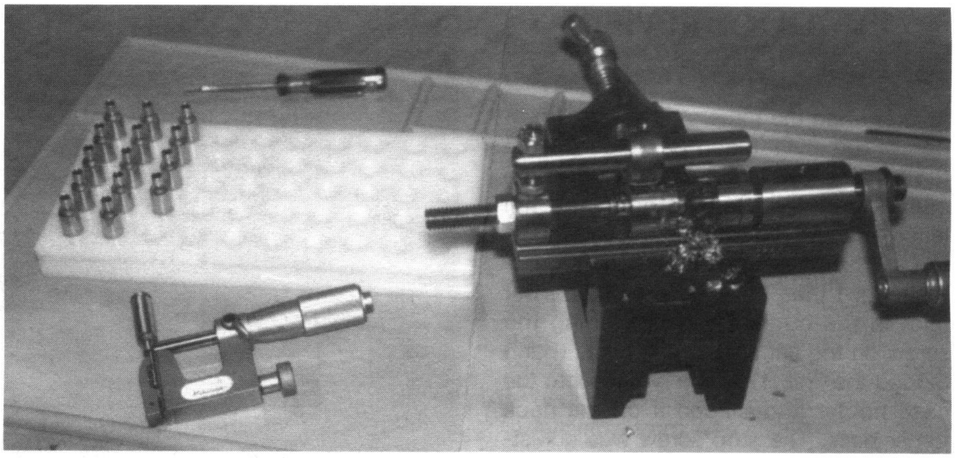
PRODUCT REVIEW:

WILSON CASE NECK TURNER

by

Todd A. Kindler

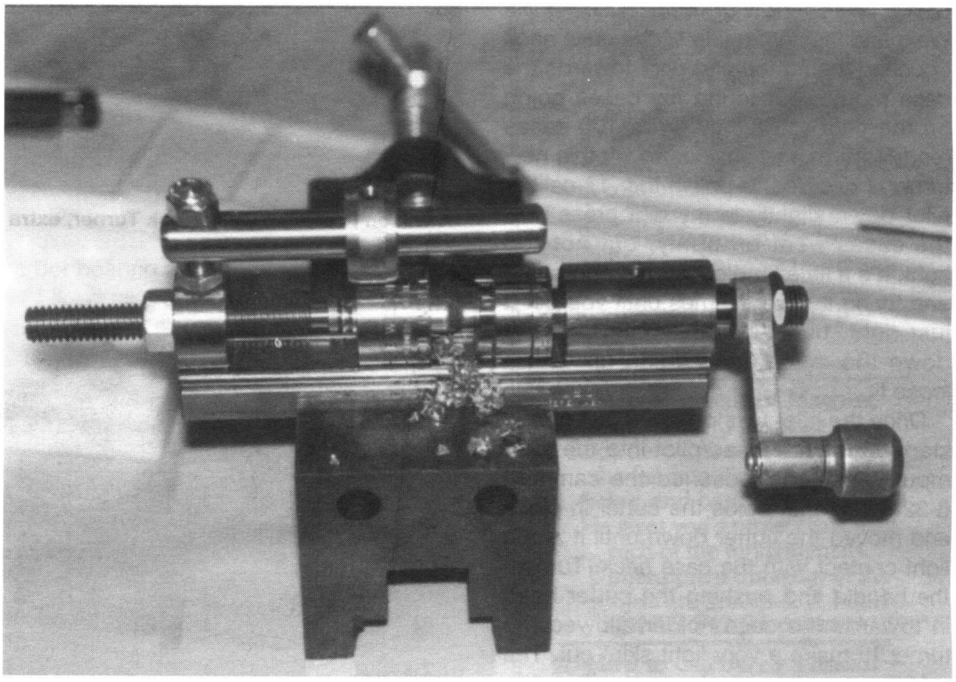


The Wilson Precision Case Neck Turner.

It will be well into the shooting season by the time this article appears, but this past winter I had the opportunity to try a variety of new shooting products (at least to me). The cold snowy winter evenings with a glow in the fireplace is a perfect time for me to sit back and try these precision tools and shooting accessories.

Jon Morrison, President of L. E. Wilson, Inc. sent me one of their precision case neck turners with a note saying to try it out and let them know what I thought. There are a lot of different case neck turners on the market, some are of the hand held type and some are the lathe style that are used on the loading bench. The Wilson precision case neck turner is of the lathe type designed to be used on the loading bench like a loading bench style trimmer.

After unpackaging the Wilson case neck turner, I unfolded the detailed instructions and started reading. I will say right now it takes a little time to read them thoroughly; not that it's a complicated tool, but so you completely understand how it works. This precision case neck turner looks very similar to the Wilson trimmer, but is really a completely different unit. For instance the case holders for the turner have been ground on a tapered arbor to achieve better concentricity and have been relieved on the body to provide a shorter bearing surface and allow the case neck to be more accurately supported by the pilot in the cutter shank. This holder also has a small pin extending radially from the head end of the holder to bear against the rail on the base and to take the turning torque without requiring so much pressure from the hold-down. The turner also has a hold-down bar that locks the precision case holder when turning begins.



Here the Wilson Precision Case Neck Turner is locked in a small bench vise and turning a .17 Mach IV.

Continued on next page

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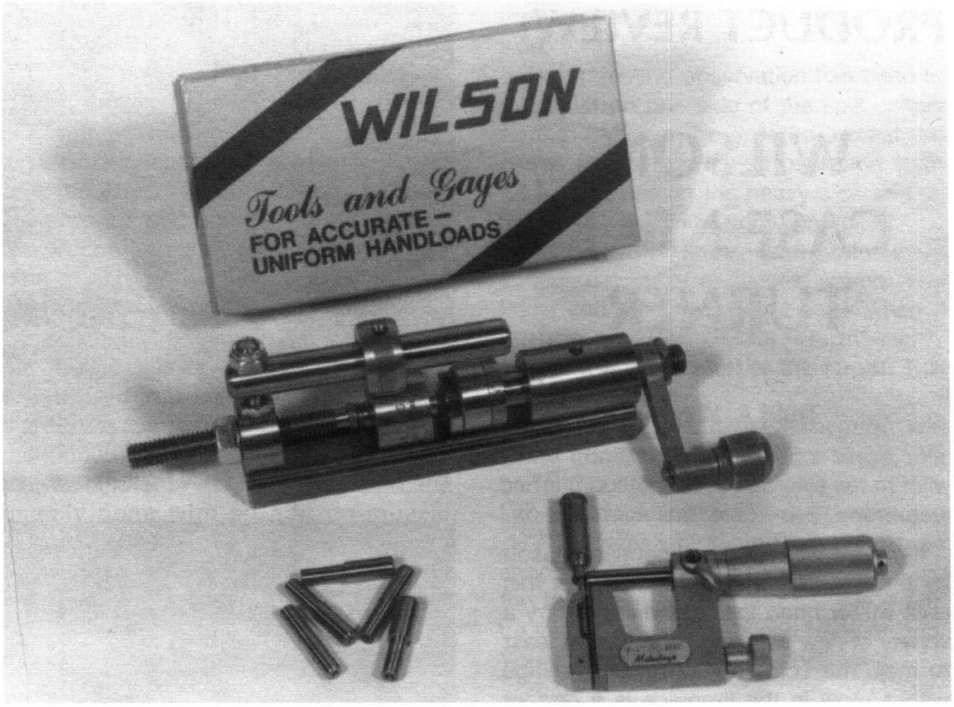
PRODUCT REVIEW

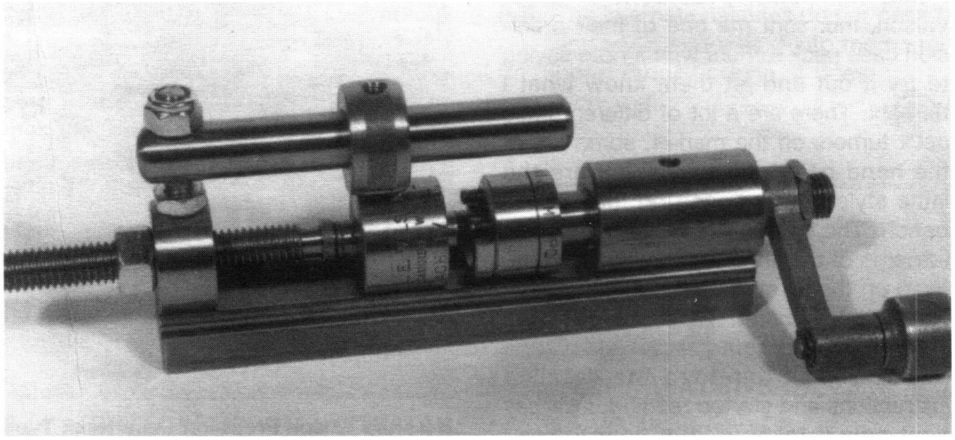
Continued

After I had the turner unit set up, I prepared 100 - .17 Mach IV cases for the turner. First I trimmed and deburred the cases then ran them through the full length resizing die with the expander button in place like the instructions recommended. I then inserted the .17 caliber pilot in the cutter head tightening the screw on the flat area of the pilot. Then I tapped the first .17 Mach IV case into the case holder and placed it on the neck turner base. The stop screw was adjusted so the entire neck would be turned down to the shoulder. After lubing the pilot (I use Tri-Flow or Imperial Sizing Die Wax) and inside/outside of the case neck I pushed the cutterhead/pilot towards the case mouth, but found my cases going on the pilot too tightly. With 100 cases ready to turn and anxious to try this new turner, I decided to polish the .17 caliber pilot down slightly in my drill press until the cases went on firmly, but not too tight. It's a little time consuming polishing and trying it several times until you get it just right, but it's better than taking it down too much and ending up with a loose fit.

Once the pilot was polished just right, I started the cutterhead/pilot into the case mouth and then loosened the cammed 8-32 screw that holds the cutter in place and moved the cutter down until it made light contact with the case neck. Turning the handle and pushing the cutter head in towards the case holder allowed the turner to make a very light skim cut. The reference collar on the cutter head is



A Wilson Precision Case Neck Turner, extra ground pilots and a turned .17 Mach IV.



A .17 Mach IV case holder is clamped in place and the case neck turning about to begin.

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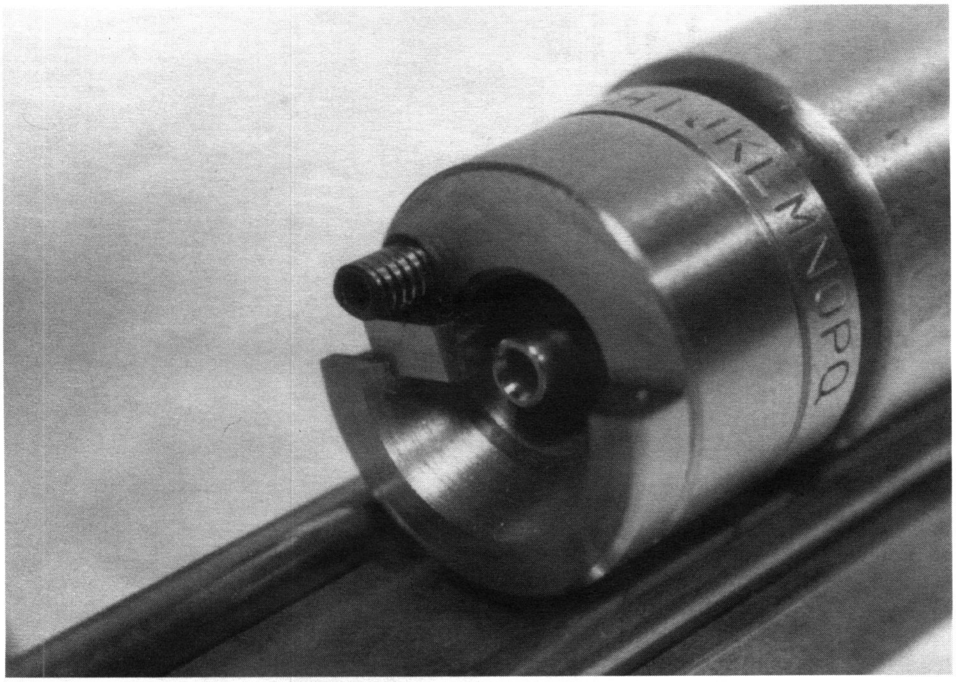

A close up view of the adjustable cutter head.

graduated from A to Q and is deliberately not numbered to prevent giving the impression that moving from one mark to the next always gives the same change in cutting depth. Going from A to B or B to C does not move the cutter in as much as going from G to H. Because the head is mounted on an eccentric, the movement starts out very slowly, and increases as you go further up the A to Q scale.

I was trying for a cleanup cut on the .17 Mach IV cases, so I adjusted the cutter from A to B and turned the first .17 Mach IV case again. This time it cleaned up the case neck completely, and I then proceeded to turn the other 99 cases. The turner did just an outstanding job with a precision smooth cut and maximum variation of just a couple tenths on only a few cases, and the rest were near perfect. It is a very smooth and easy turner to use with its precision ground arbor bearing and cutter shank.

Like most other case neck turners it may take a little time to really get the "feel" for adjusting the turner for the right cut. What I recommend to new precision reloaders is to pick up a few inexpensive cases and practice with the turner until you understand each setting. Make notes of each adjustment and put the note card in the turner box; thereafter, you will have a reference for later use. Try different lubricants until you find one that gives you a smooth cut and keeps the pilot from galling.

The Wilson Precision Case Neck Turner is a top notch turner that any serious precision reloader would be happy to use. Sinclair Int. makes a nice aluminum base that the Wilson Turner can be mounted on. It raises it high enough for handle clearance and can be bolted or clamped to the reloading bench. Sinclair Int. also offers a power adaptor for use with a battery powered screwdriver for those who plan on turning a large volume of cases. However, I felt it was an easy turner to use with the crank handle just as it came from the factory. Another turning tip would be to run the cases over a K & M case neck expander before turning. This may allow the expanded case necks to go onto the unaltered pilots easily. A special thanks to Jon Morrison and the talented craftsmen at L. E. Wilson for letting us try another precision reloading tool.

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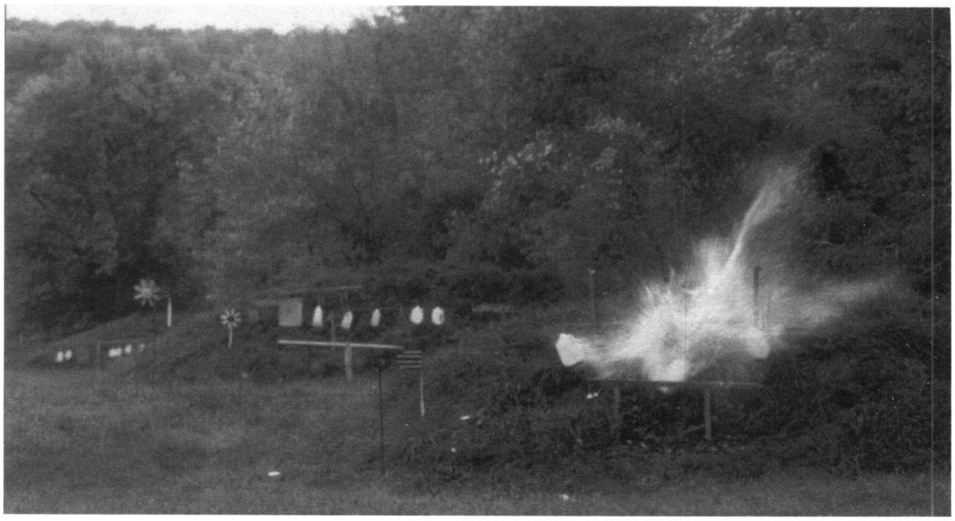
A JUG RIFLE

by

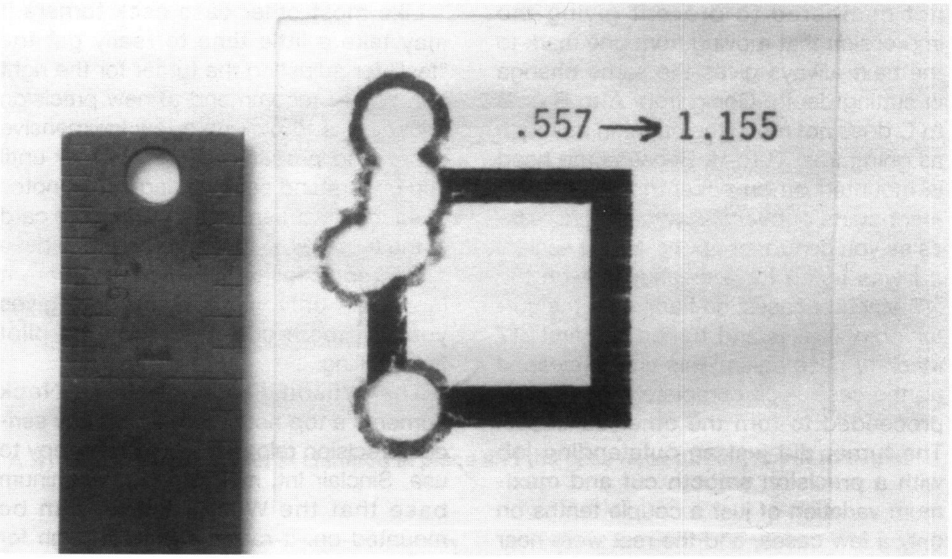
Roger Clouser

Shooting water jugs is serious fun and rates high on the bang for the buck quotient. For fractions of pennies each target, it is possible to get high visibility hits and misses with a great deal of interest to shooters and bystanders alike, regardless of age. At the end of a recent jug shoot, my 80 year old mother promptly announced who had the most hits and whose sights needed adjustment, as she had watched the entire session and found it a hoot. Jug shooting must be done at an appropriate and safe place of course; the more careless we are the worse we look to non-gun owners. But water filled plastic jugs are a safe and plentiful target and once you start collecting them, it will be surprising how abundant they are in an average household. When your friends find out you are collecting them you will have more than you need. Water filled jugs are quite inexpensive; the water in my gallon jugs costs me 1/3 of cent. And the recycler has never once complained that they are blown apart when he gets them. If your club or shooting group needs an exciting, low cost but crowd pleasing activity, try a jug shoot.

The gun should be an impressive performer on the jugs at the yardage selected and be easy to shoot. A good performer does not simply break the jugs, it explodes them with finesse. As fun as the .22 rimfires are to shoot, their performance on the jugs is limited, especially at the ranges of 50, 100, 200 and 300 yards used here. I find chamberings of the



Good jug performance from a 310 gr. cast bullet at 1,470 fps.



Cast bullet groups like this are common in author's factory barreled Ruger No.1.

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This novice young lady shows good form on the bench with author's Ruger No. 1.

heavy and the slow are perfect for jugs. Loaded properly they are good performers, have a less offensive report than many modern rounds, and are a natural for cast bullets. More often than not, the soil conditions allow visibility of the misses, an advantage of heavy bullets often cited by Elmer Keith.

The Ruger featured here is in 45-70, probably not what most people would pick in a No.1, but it turns out to be a most interesting and versatile piece. Handloads with a 310 grain cast bullet and any velocity desired from 1,100 fps to more than most people really want to snap off give surprising diversity and performance. Although this rifle is strong enough to shoot 300 grain bullets at a horrific 2400 fps, it is the low and medium loads that are of most interest for jug shooting. The load must be well balanced between good performance on the jugs and mild enough recoil for a fun afternoon shoot with friends.

The 1,100 fps load mentioned above is one of my goodwill ambassadors to novices who frequently want to "try the guns" as a young lady recently told me. I was packing up my load development tests and guns as dinner guests arrived at a private range, and the comment surprised me. It should not have, as it is a common request from people who have heard and read a mixed review about guns, have never tried any, but are eager to shoot anyway. After explaining safety, the gun, the bags and a few dry runs with a snapcap, this young lady splashed every 50 and 100 yard jug she tried, and had great fun her first shooting experience. Benchresting a novice shooter is much safer than having them wave the muzzle and wobble around offhand and almost guarantees they will have more hits and a good time.

Experienced guest shooters generally shoot offhand and get any load they care

Continued on next page

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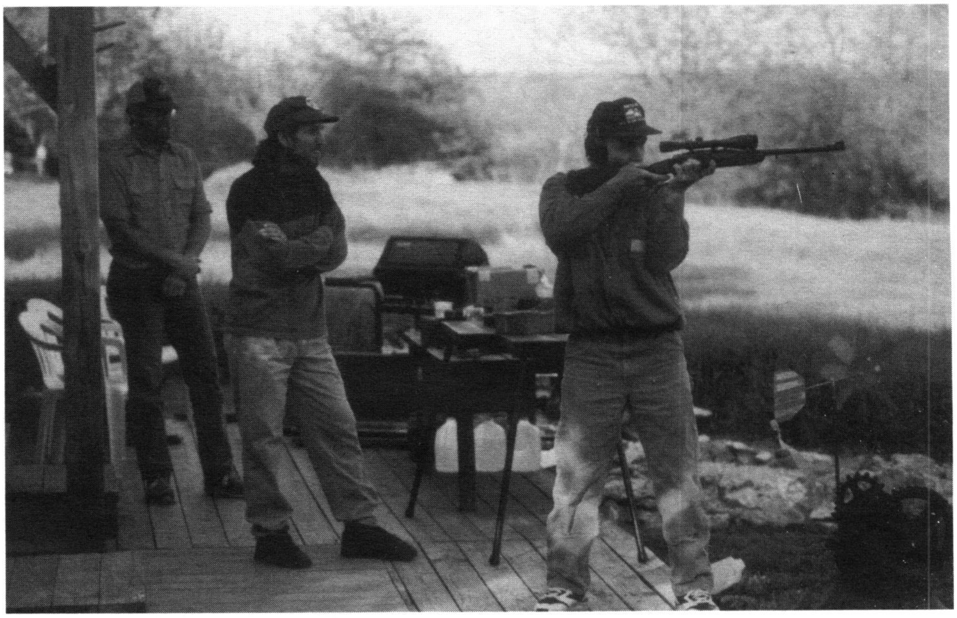
A JUG RIFLE

Continued

for, but a 310 grain cast bullet at 1,500 fps is a classic in a 45-70 1886 Winchester or Ruger No.1. This load is a good performer to 200 yards, is fun to shoot and mild enough to stay with an entire afternoon. The interactions between experienced shooters working on jugs is always interesting to watch. The jokes, laughter and comments are usually non-stop, especially since the action is instantaneous and dramatic. Even misses with a good sized cast slug slapping into the earth beside a jug keep everyone's attention up. This is fun stuff.

While shootability and appeal to novices is one role of this rifle, the most important part of the project was to see how accurate this Ruger could be made using cast bullets, the original stocks and without removing the factory barrel. Modifications were limited to what I could do myself without making the rifle unusable for beginners. There are a number of attractions to using cast bullets. At first the shooter is aware the bang for the buck quotient is increased, since the most expensive component of the loads is drastically reduced. It is always priceless to watch the looks on guests' faces when they first inspect a loaded round and are told the bullets were made largely from wheel weights salvaged at no cost. But while that factor may start a shooter into casting, there can be incredible satisfaction later on in producing super accurate loads made with bullets poured yourself. The shooter becomes more of the process, and ultimately learns a great deal about what it takes to make a gun shoot properly.



Most experienced shooters take on the jugs offhand. Ribbing and jokes were non-stop.

Getting serious accuracy with cast bullets in a factory barrel is not an easy or straightforward procedure. We are not talking here about off the shelf accuracy which can be purchased. And furthermore, my accuracy goals for this rifle are not very modest. I want as close as I can get to 1/2 moa aggregates out of a cold clean barrel with smokeless powder and fixed ammunition. Why leave anything out while you're at it? It is hard to be a fan of three shot groups. They amount to two shots chasing the first one, a handicap commonly awarded big bores, along with 50 yard targets. While three shot groups may be appropriate for some big game hunting rifles, jug guns are commonly shot 100 or more rounds in a session, without cleaning. So jug guns will be judged by aggregates, and everything on the target counts: the good, the bad and the flyers. They all have story to tell. As this project is still under development, the rifle is not presently shooting 1/2 minute aggregates, but is bearing down on that goal with aggregates of 1.2". The encouraging part is that many of the groups indicate a condition well known to Precision Shooting readers as "acts like it wants to shoot," with four shots in around 1/2" and the fifth out to around an inch or so . Encouraging as that is, there is still much work to be done. I do

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not discount the flyers; more gun and load development are needed. And that development is part of the challenge that makes such a project so interesting.

Ruger No.1's are quality rifles for the money. With a beautiful and frightfully strong falling block action, nice wood, cut checkering and great pre-scope balance, these rifles can deliver surprising accuracy when some major components are massaged properly. The barrel is a logical starting place and mine, like most mass produced guns, had its share of problems. There were major tight spots at the breech, the barrel band and the muzzle. The throat constriction seems to be caused by the collapse of the barrel when it is screwed into the action and is common to many rifles and revolvers. The other two constrictions are caused by attaching the barrel band and front sight band to the barrel. The front sight constriction was even visible under strong light. These irregularities may not prevent a rifle from shooting jacketed bullets with reasonable accuracy, but when combined with the obligatory factory chatter marks are a major problem for cast bullet shooters, as they will never allow top rate accuracy. I knew these tight spots were more than fire lapping could remove, so I sent the gun back to Ruger and requested another barrel. Much to my surprise, they honored the request. My hat is off to Ruger; they make an excellent rifle to begin with, charge a very reasonable price for the quality, and really take care of their customer problems. Shooters, in turn, have a responsibility not to request free replacement for parts they have damaged, especially barrels ruined by improper firelapping. Slugging the bore on the second barrel showed it also had tight spots at the same three spots but they were not as severe. It also had the usual chatter marks. A combination of first using a lead lap on a ramrod to concentrate on the problem areas followed up by firelapping allowed me to eliminate the tight spots and chatter marks without extending the throat to an unusable length. Extending the throat is one of the problems with firelapping so it must be monitored very closely, especially since most cast bullet rifles shoot best in a range from the bullet engraved on the lands to a .020" jump.

Firelapping was an immense help to this rifle. The barrel now has no tight spots, looks brilliant when held to the light, and most importantly shoots much better. It did increase in diameter since it was opened up to slightly over the largest dimension. The constrictions were originally .4585" and were opened up to an even .4597" the length of the barrel, with a throat diameter of .4604". Presently, .4605" bullets are being used. Firelapping is a very tricky enterprise that can ruin a barrel much faster than you would guess. While a borescope would be ideal, I would not attempt this job without a Neco lapping kit, a micrometer, numerous soft lead slugs, Dewey rods (Sinclair), an 8x jeweler's loupe (Edmund Scientific) and help from knowledgeable experts (Neco).

Another area in which the Ruger needs attention is the bedding. Precision Shooting staffer Merrill Martin, with a wealth of new ideas and impressive techniques for cast bullets and Ruger No.1's, devised a unique forearm bedding system utilizing gel consistency bedding compound and RTV silicone (Precision Shooting, Jan, 1992). The buttstock is bedded to the receiver in the conventional manner and with no changes to the Ruger's forearm design, bedding is built up in the space between the forearm and hanger with the forearm held away from the barrel with an appropriate thickness of tape. Bedding pads are located on the

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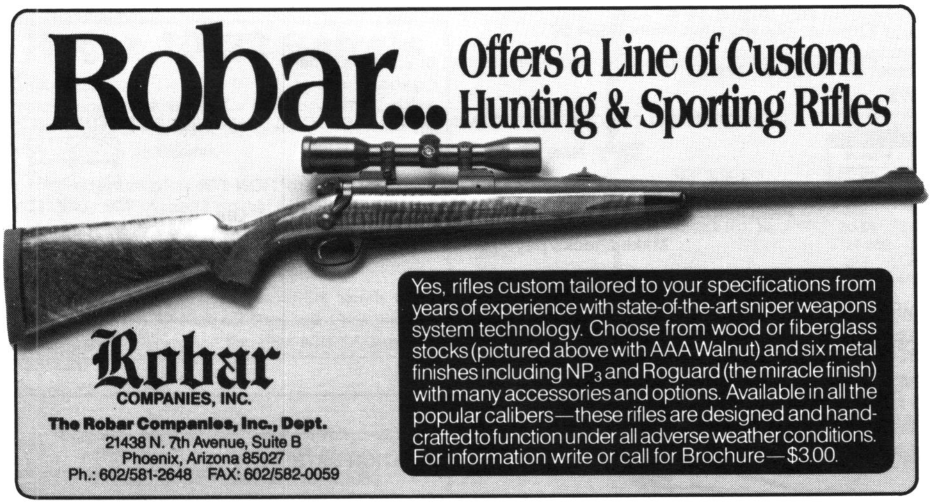

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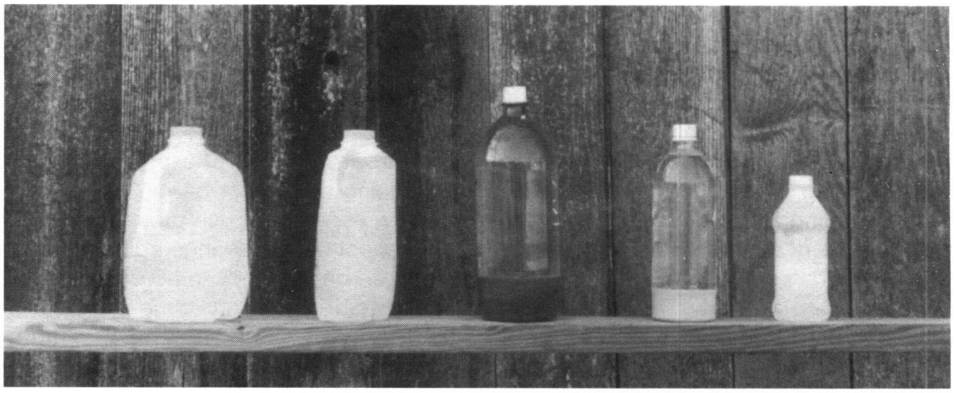
A JUG RIFLE

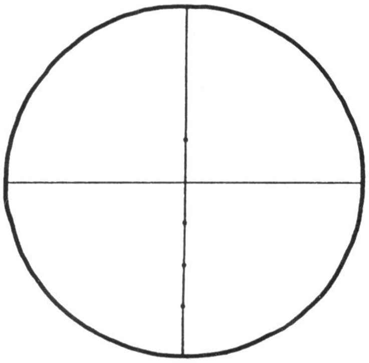
Continued

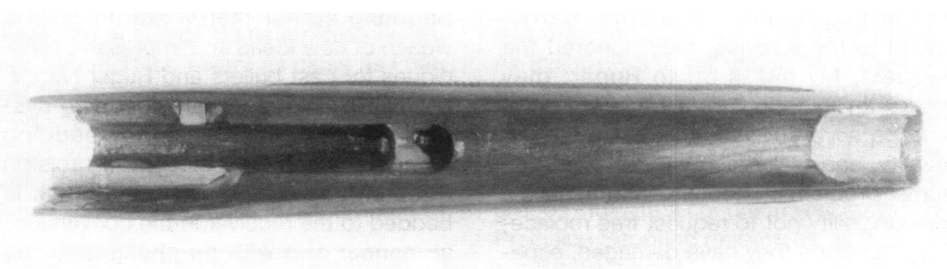
hanger and the front of the receiver. The forearm ends up tight against the hanger and back against the action with 1/16" clearance between the barrel. After the primary gel bedding sets up, RTV silicone rubber is then bedded on the first one inch of the forearm for zero forearm pressure. The results are no group center changes and no vertical stringing from heat. It works great and can be done by any gun tinkerer. If you decide on Devcon aluminum bedding compound, try a thin band of colored epoxy at the outside edges so the aluminium color will not show. I have used this system for a number of years and have never had a problem with tinted Acraglas touching and hardening with the Devcon, and it certainly gives a better look to the job.


A round-up of the usual suspects.

A few other modifications help quite a bit. The original trigger is retained but liberated from its attorney status of 7 lbs. I did the job myself and it is sweet, crisp, 2 1/2 lbs. and safe. A good trigger is a must in any pursuit of serious accuracy but too low a pull would limit the gun's safe use to experts. The best way to handle the trigger is to let a gunsmith modify the original or install an aftermarket unit. A Wolff mainspring (Brownells) was used and a Pachmayr Decelerator pad replaced the original, which was pretty worthless. After firelapping, the muzzle was crowned with a Brownell muzzle chamfer, a tool worth having for this important accuracy detail. The last modification is a set of suede stock covers made by my wife. The forearm cover helps the shooter hang on to the little rifle under recoil and the buttstock cover has a 3/16" Sorbathane (Brownells) cheek pad sewed into it. Since the shooter must enter a quite intimate relationship with this rifle for it to perform, the pad helps immensely. After one shooting session with this pad, the rifle felt hard and naked without it, an undesirable condition in this instance.

The scope used is a Leupold 12x with an adjustable objective, a mandatory feature for a scope that must accommodate constant changes between 50, 100, 200, and 300 yards. Dick Thomas of Premier Reticles installed target knobs and fine crosshairs with four 1/3 minute dots spaced 15 minutes apart. A full rotation of the target knob is also 15 minutes, so it corresponds to the space between


The Premier Reticle scope conversion allows enough elevation for mild 45-70 loads.


This forearm bedding job eliminated group impact changes and verticle stringing due to heat.

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Muzzle was crowned by author with Brownell chamfer tool.

Indexed brass, indexed LBT Marlin bullet and PVC wad.

dots and allows large elevation changes to be handled much more easily without ever turning the knob more than a full rotation. The conversion is excellent, and solved the problem of inadequate scope elevation for the loads used. The gun is sighted in at 100 yards on the top dot, allowing more than 90 minutes of elevation for the high trajectory needed for 300 yard jugs. An ACD unit (MWG Co.) stops canting and the subsequent windage problems at longer ranges. It is imperative to align the crosshairs while looking through the scope at a spirit level or plumb bob and then set the ACD unit with the bubble in the middle. Otherwise a gun sighted in perfectly at 100 yards can show considerable windage error, enough to miss a jug at 200 yards. While a scope of higher magnification would certainly aid experienced shooters, it would also make the rifle too awkward for beginners to handle, hence the compromise at 12 power.

Match grade loads start with match grade 310 grain cast bullets held to within 2/10% or .8 grains variation largely by using Merrill Martin's technique of using a thermometer in the mold as well as in the pot. These castings are weighed on a PACT electronic scale and inspected three times under magnification during the loading process. They are also indexed when sized and loaded. Cases are indexed to the thin side of the wall with a Neco tool and loaded rounds are indexed to the chamber. PVC wads are loaded under the bullet. Although 45-70 loads commonly center around slower burning powders like IMR 3031 and 4198, I found them to leave far too much unburned residue in the barrel with medium and reduced loads. Hercules Unique and H4227 are used here since they are accurate and clean burning. For pure target loads, nothing I know beats Unique up to 1,500 fps, and it is the least sensitive to position changes in the large case. Of course it is imperative to load these carefully and avoid multiple charges which are possible in large cases. But considering the sophistication of Precision Shooting readers this should not pose much of a problem.

All of these accuracy aids to the rifle and loads will not help much if gun handling techniques are not really well honed. Mind you, this is no ordinary rifle to shoot for serious target work off the bags. A number of informative pieces have appeared in Precision Shooting regarding the merits of no contact vs. light buttstock contact in shooting off a bench. Unfortunately there is no choice here. This rifle must be held as tightly as consistency will allow, and follow through takes on a whole new meaning. Give it a slightly light shoulder and the shot will go

Continued on next page

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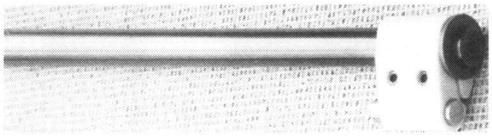

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	.22-250 50 gr	100 yd	.875"-1.70"	.350"-.590"
	.233 50 gr	100 yd	.525"-1.25"	.210"-.590"
40XR	CCI Greentag	50 yd	.380"-.600"	.220"-.360"
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A JUG RIFLE

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low. Failure to hold firmly will give a right handed shooter diagonal stringing at 2:00 o'clock. It is necessary to reach around to the front side of the front of the front rest and grab on to the forearm. The suede stock cover provides a better grip for this. A decent front rest, rear bag and firm, consistent control are imperative for small group shooting.

Offhand shooting is quite fun and although consistent gun control is still mandatory, the rifle can be held in a more loose and relaxed manner. While a longer and heavier barrel would surely allow more steady holding, the lapped barrel, excellent optics, precise trigger, indexed match loads and padded cheekpiece are a real aid to high scores on the jugs. Actually, as difficult as offhand shooting is, it does not seem as complex in some ways as trying to hang on to this little rifle at the bench for subminute groups. Once a good target load is established, I would estimate that 60% to 70% of the success of this Ruger to shoot small groups is from gun handling, with the remainder going to wind management. A light gun, relatively heavy bullet and long barrel time do wonders to mask the potential accuracy of this rifle, which is considerable. My targets tell me

I have much work to do. I'm listening.

45-70 Cast Bullet Jug Loads

Bullet (grains)	Powder	Charge (grains)	Brinell Hardness	Velocity (fps)	Remarks
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309	Unique	14.5	12	1300.	Mild, good load to 100 yards.
308	Unique	17.5	13	1470.	Great load to 200 yards, mild.
308	H4227	30.	13	1620	Good load to 300 yard load.
308	H4227	33.	13	1790	300 yard load.

All velocities are averages at 55 to 65 degrees, 6' from muzzle with ProChrono chronograph. Winchester brass, Federal 210 match primers, PVC wads and LBT cast bullets used throughout. Brinell Hardness measured on LBT scale. All loads for Ruger No.1 only. Reduce all loads 15% and work up from there.

SOURCES

Brownells Inc., S. Front St. , Montezuma, Ia., 50171.

Edmund Scientific, 101 East Gloucester Pike, Barrington, N.J., 08007.

LBT, HCR 62, Moyie Springs, Id., 83845.

MWG Co ., P.O. Box 971202, Miami, Fl., 33197.

NECO Co., 1316-67th St., Emeryville, Ca., 94608.

PACT Inc., P.O. Box 531525 Grand Prairie, Tx., 75053.

Premier Reticles, 920 Breckinridge Ln., Winchester, Va., 22601.

Sinclair International Inc., 2330 Wayne Haven St., Fort Wayne, Ind., 46803

FURTHER READING

Merrill Martin, "Accuracy from a Ruger No.1", Precision Shooting, Special Edition No. 2, Vol. 1, Nov. 1994.

Merrill Martin, Precision Shooting, Jan, 1992. Back Issues: John Hollister, R.D. #2, Box 2395, Whitehall, N.J., 12887.

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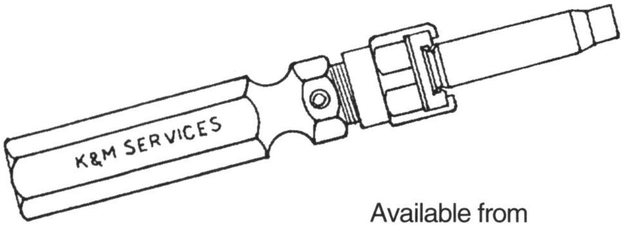

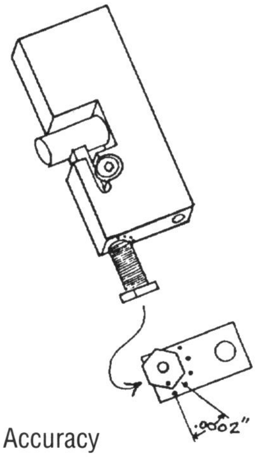

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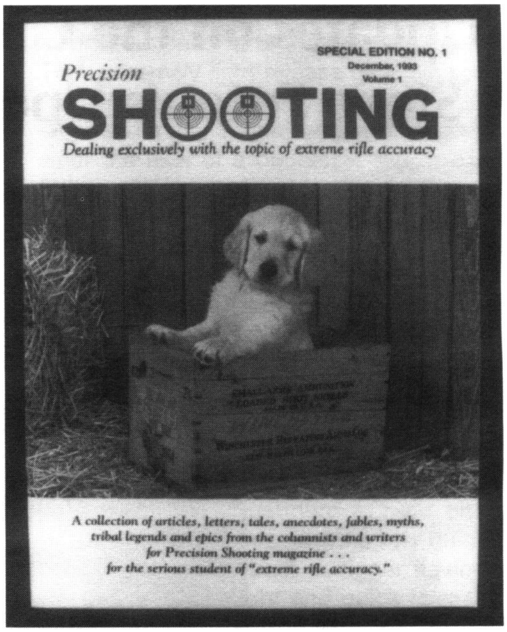

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December, 1993
Volume 1

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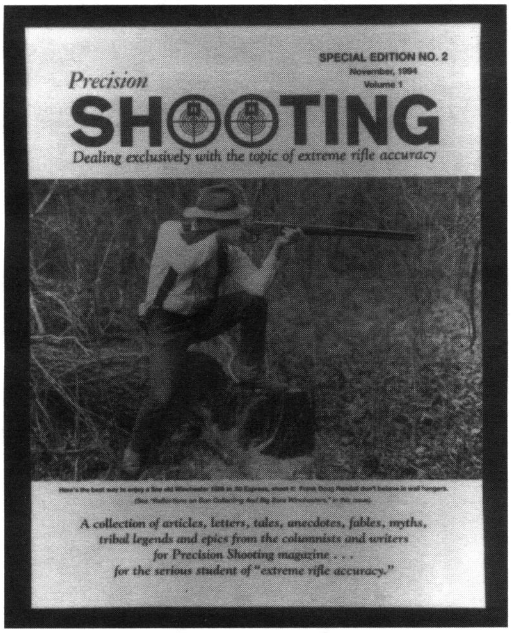

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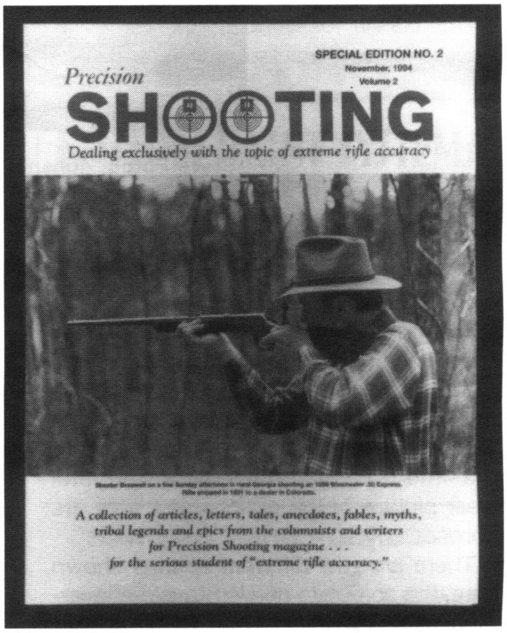

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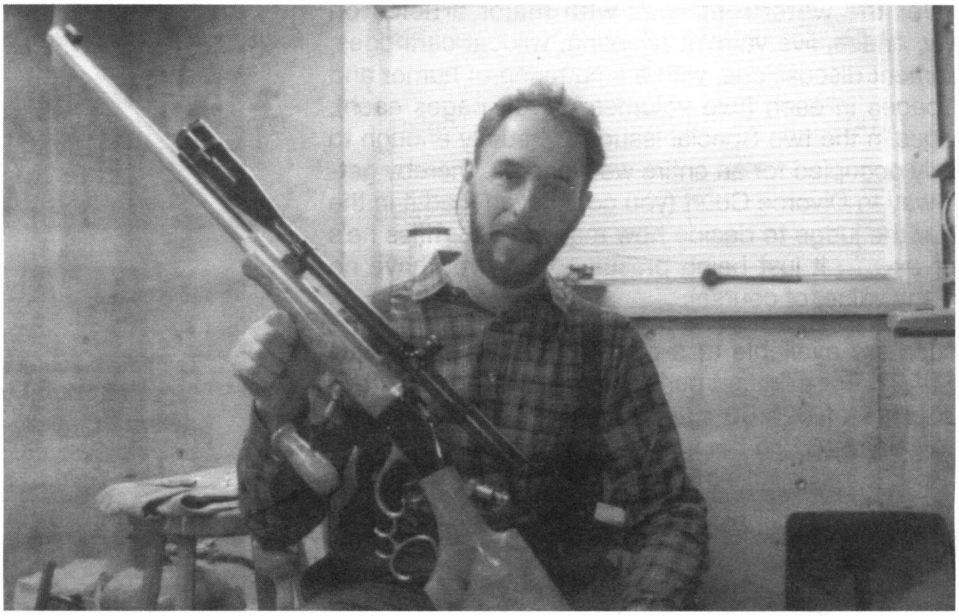
Updates on the Great Gunsmith of the Great Salt Lake: Steve Fotou's Update on the Sharps Borchardt Action

by

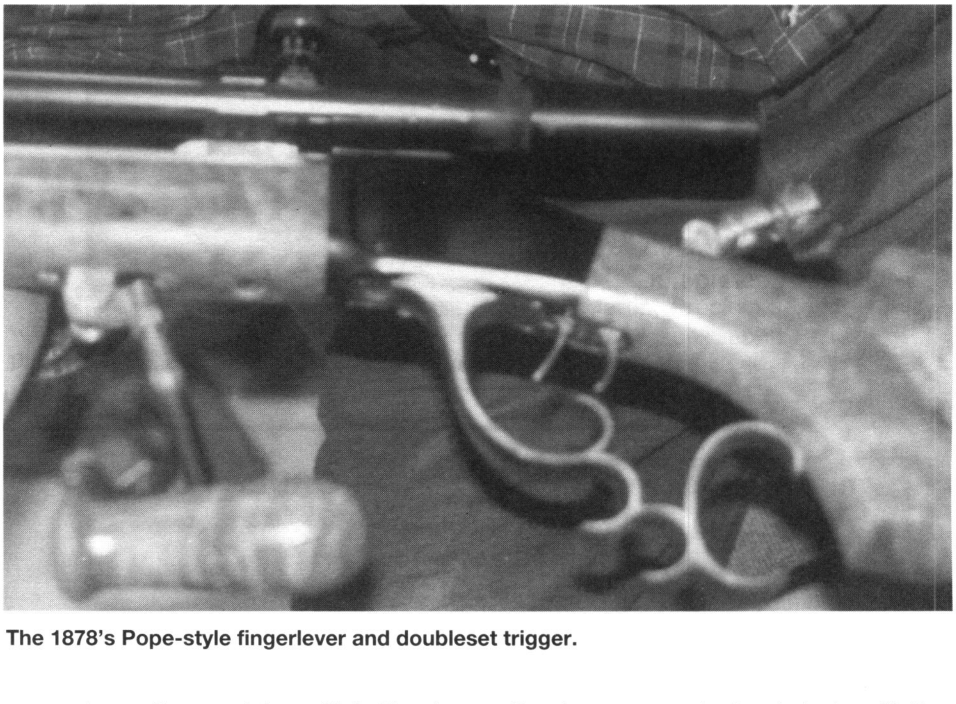
Richard Kayser



Steve Fotou, gunsmith extraordinaire with his Schuetzen stocked Browning M1878. The scope is an older Redfield, a design still very competitive and in vogue in Schuetzen shooting circles.

I lost (actually misplaced) one roll of color film I took at Steve Fotou's shop this spring. The pictures were of Steve's shop and the beautiful updated version of the Sharps Borchardt actions he was building for his wife and himself for the 1994 Schuetzen season. I am not sure that the color film will allow a crystal clear picture of the actions, but they are gorgeous.

There are two different actions shown here, the complete rifle is Steve's conversion of a Browning 1878 to doubleset triggers and his handfiled Pope-style fingerlever. As with all of his work, the craftsmanship is flawless and esthetically pleasing. The old original Schuetzen rifles are perhaps the most beautiful rifles in existence. If as Col. Whelen says, it is true that only accurate rifles are interesting; then these are spellbinding examples of the gunbuilders art.



The 1878's Pope-style fingerlever and doubleset trigger.

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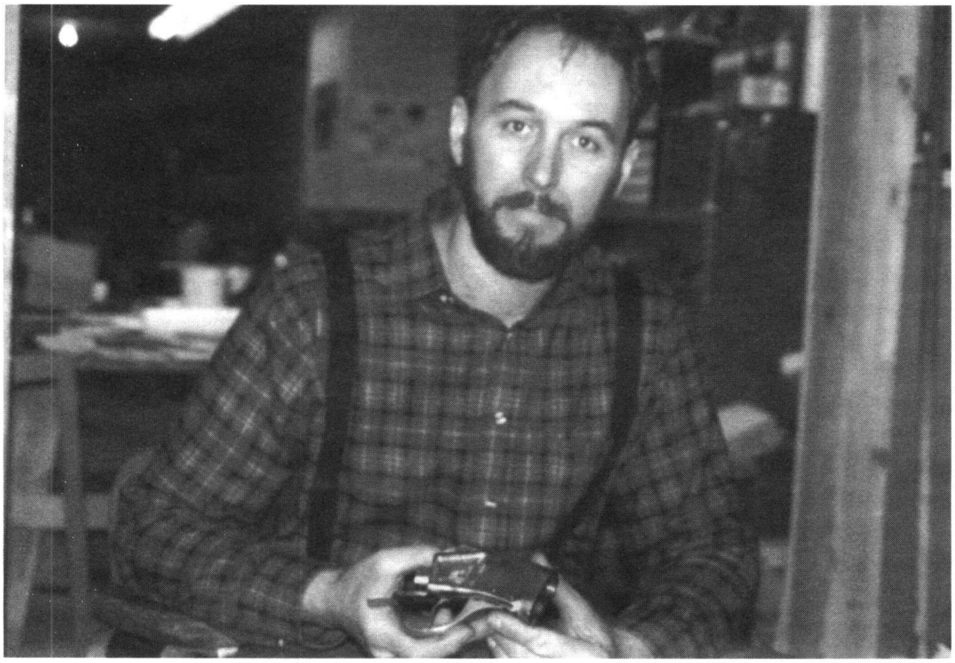
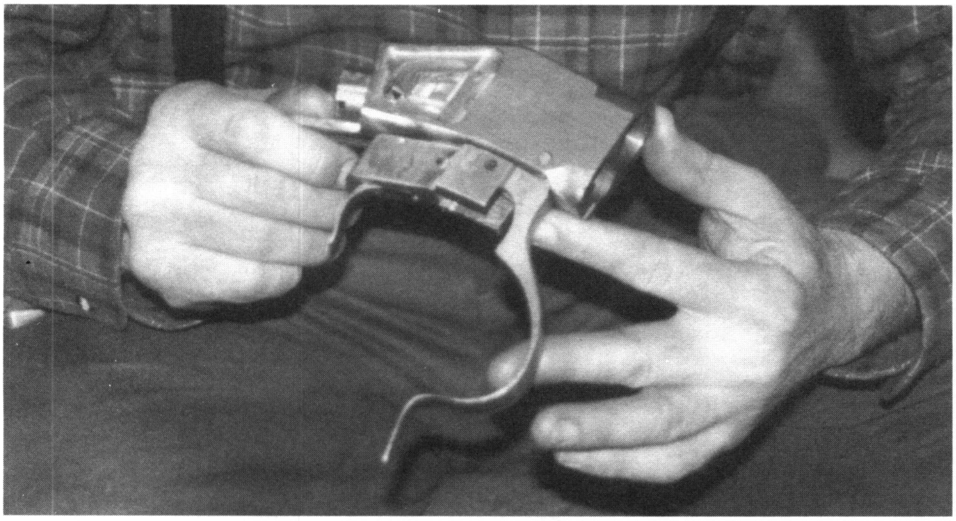
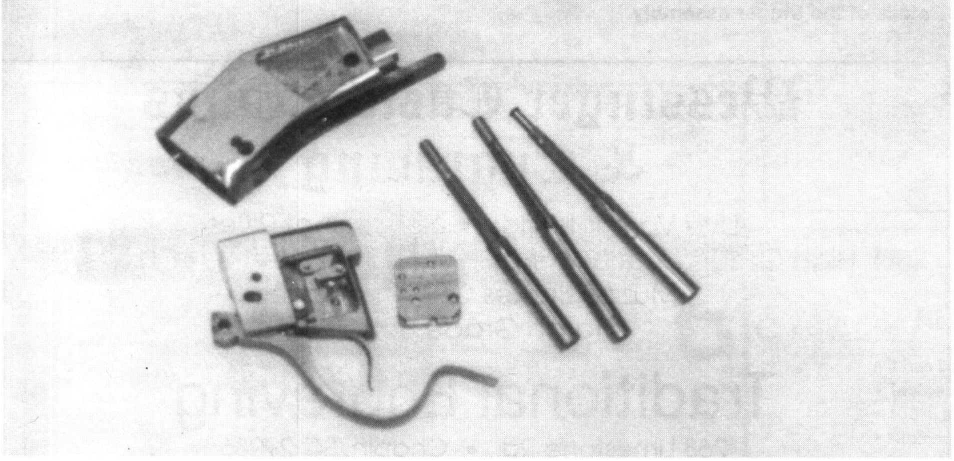
Despite the doublesets on the Browning, Steve's preference for competition rifles is a proper singleset design. Notice the word "proper". According to Steve Fotou the doubleset trigger has one advantage over most single designs, a light pull. A proper doubleset trigger system can be "set" or adjusted to a sub-one ounce release. Most singles, other than



Steve Fotou and his Sharps Borchardt recreation, rendered in stainless steel.



The Fotou-Sharps Borchardt, legal for NR Blackpowder Silhouette matches.



The Sharps field-stripped with three of Steve's selfmade reamers. 40Krag, 40-65, and 45-70 I believe.

Arnold Jewell's masterpiece are stymied at one ounce or a bit above that mark. That extremely light release give the illusion of a super-light and speedy locktime, and many Schuetzen shooters consider the lack of a doubleset trigger the Miller action's only deficiency. Some European actions, like the system Aydt, feature multiple trigger levers in an attempt to lighten the pull as much as possible. Extreme examples featuring as many as nine levers exist in some Schuetzen rifle collections. Each lever allows the trigger pull to be lightened, but adds milliseconds to the locktime.

I mentioned the Jewell trigger as the ultimate in single trigger designs. It is light, allowing adjustment to near one ounce safely, and possesses a very quick action. Steve has built a trigger having the same light weight and quick release to his Borchardts. As this is written in early July, He has a crisp, reliable (his words), accidental discharge-proof design that will adjust down to the two ounce area, with more improvements available. I asked Steve for an explana-

Continued on next page

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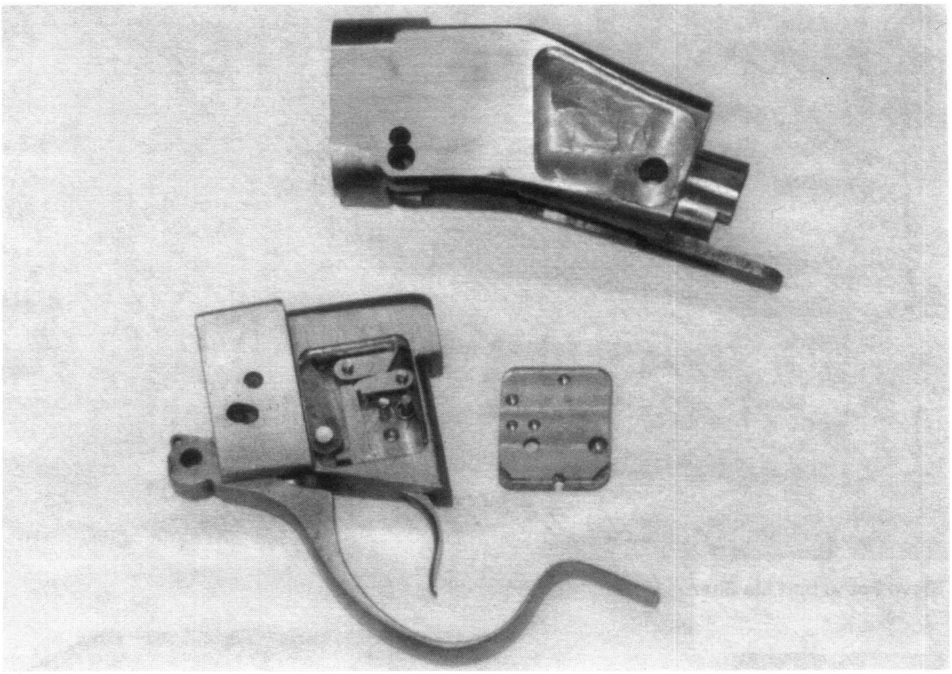
tion of his emphasis on the word "reliable" and his reply was simple. "I'd rather have a two pound trigger that was exactly two pounds and crisp every time than a one to three ounce version that had a bit of creep or drag every so often. My triggers are consistent first and foremost, if not they don't leave my shop. A customer has the right to expect a smooth, clean trigger on a rifle, and one that allows them to adjust their sight picture and trigger release and rely on the trigger breaking clean every time when they caress the trigger. If not, valuable points are lost in the offhand half of Schuetzen matches, and that is where match championships are won and lost. Anybody can shoot a rifle off the bench with a decent trigger, offhand is where the winners and losers are separated."

Based on my limited Schuetzen shooting, and the chance to try out many of the top competitors rifles, I have to agree. Dave Purcell lent me his rifle at a Coors Regional in Tacoma, Washington a couple years ago. It had a four pound two-stage pull, just like all of Dave's DCM match rifles. Heavy, and two stages or not, it was a crisp, repeatable trigger pull, and I shot a winning 246-7 Center score with it first time out.

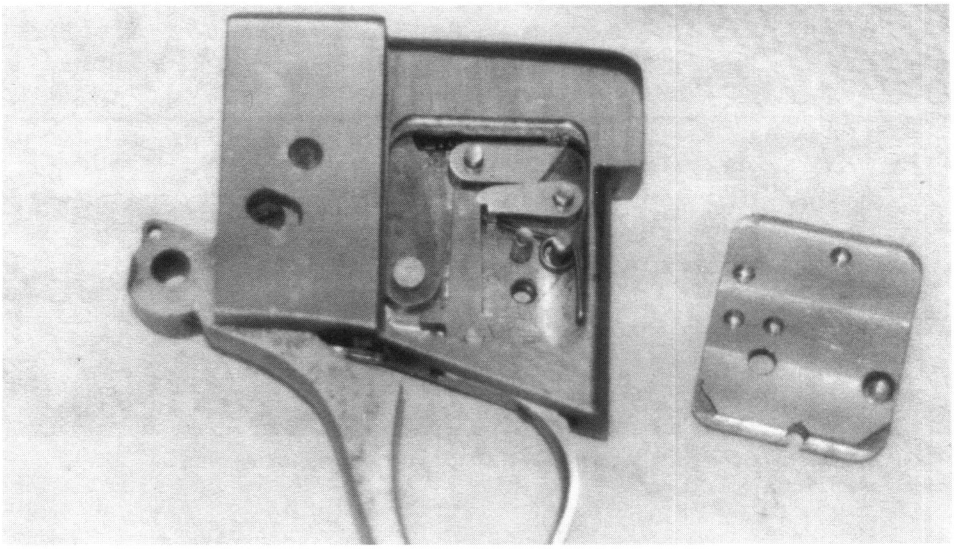
The workmanship coming out of Steve Fotou's shop in Salt Lake City is impeccable. This is just one more example. Enjoy. (Steve Fotou, 644 East 150 North, North Salt Lake, Utah 84054)

Take care, and may all of your shots fly true.

Respectfully yours,
Richard Kayser



A closer view of the action disassembled.



Details of the trigger assembly.

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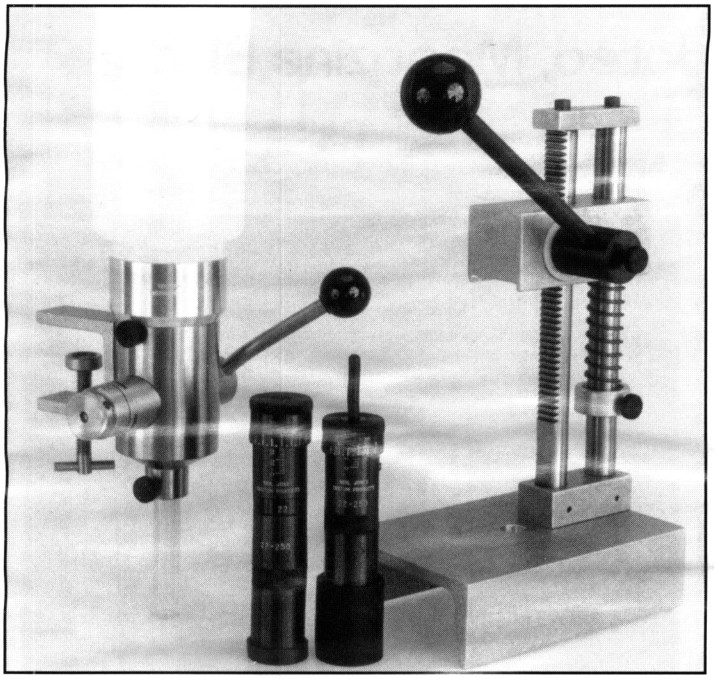

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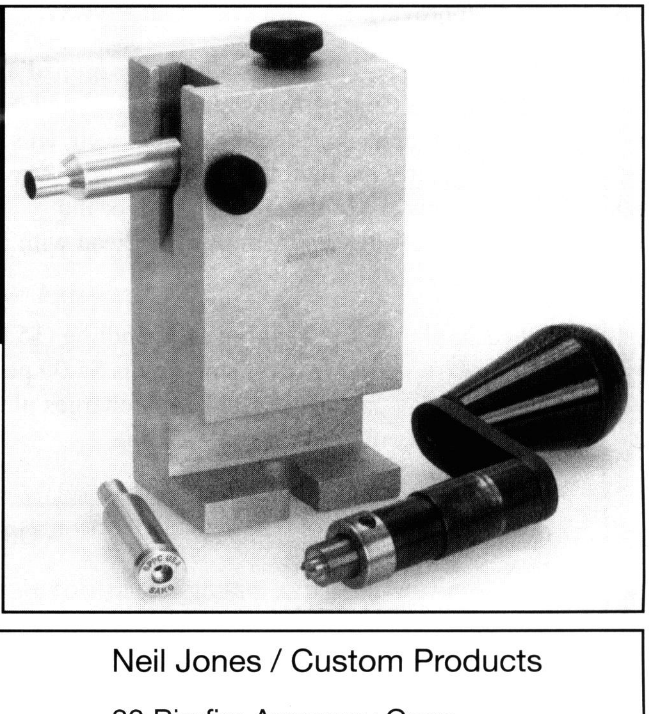

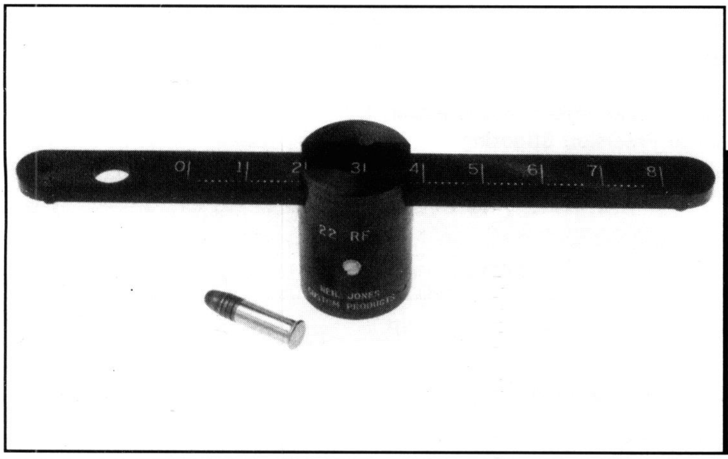

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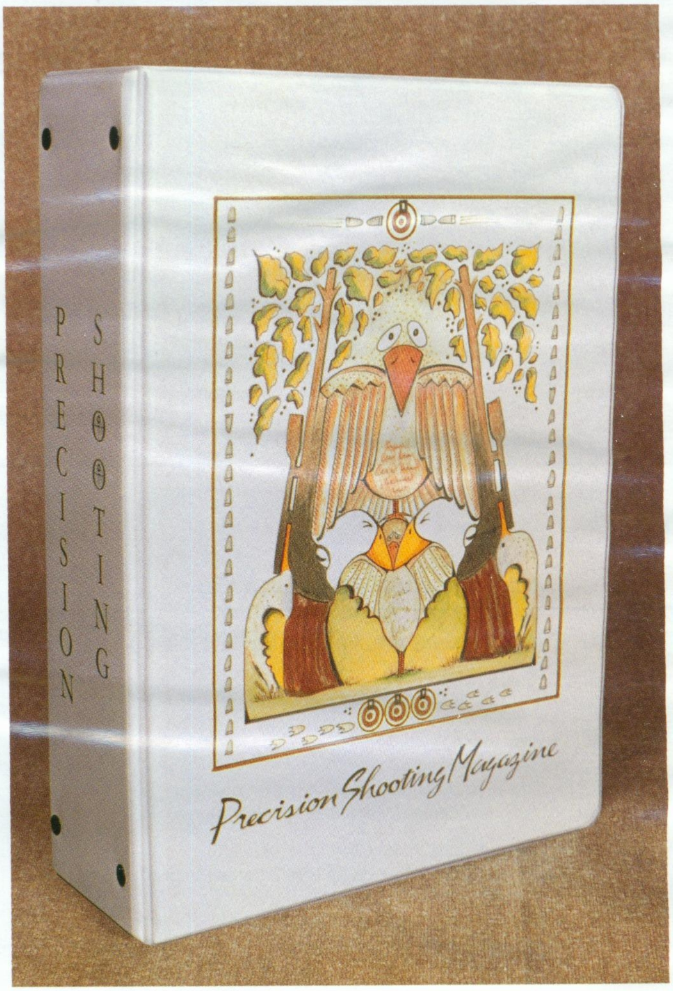
Ms. Turner's concerns notwithstanding, if we want a Coat of Arms for PS, then we're going to have one... it's that simple! We are unwilling to accept the point that no other firearms publication has a Coat of Arms. It is probably merely a reflection that we are the only classy outfit in the field today (with a sniff of disapproval). But you knew that anyway.



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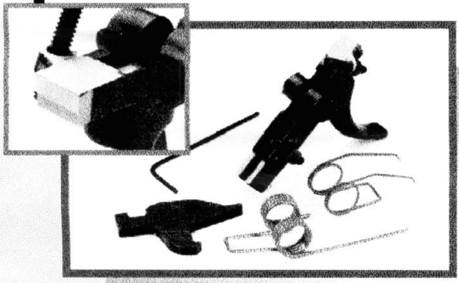

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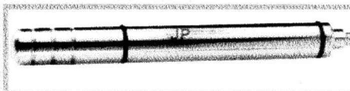

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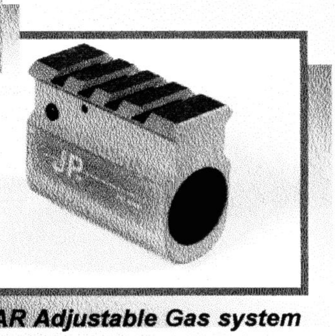

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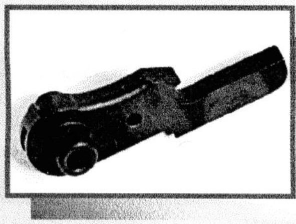

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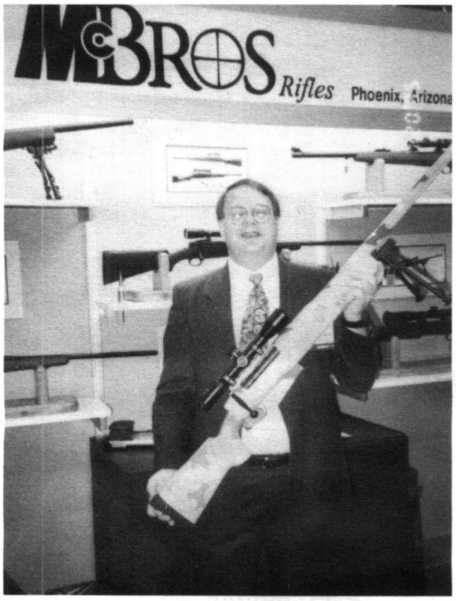
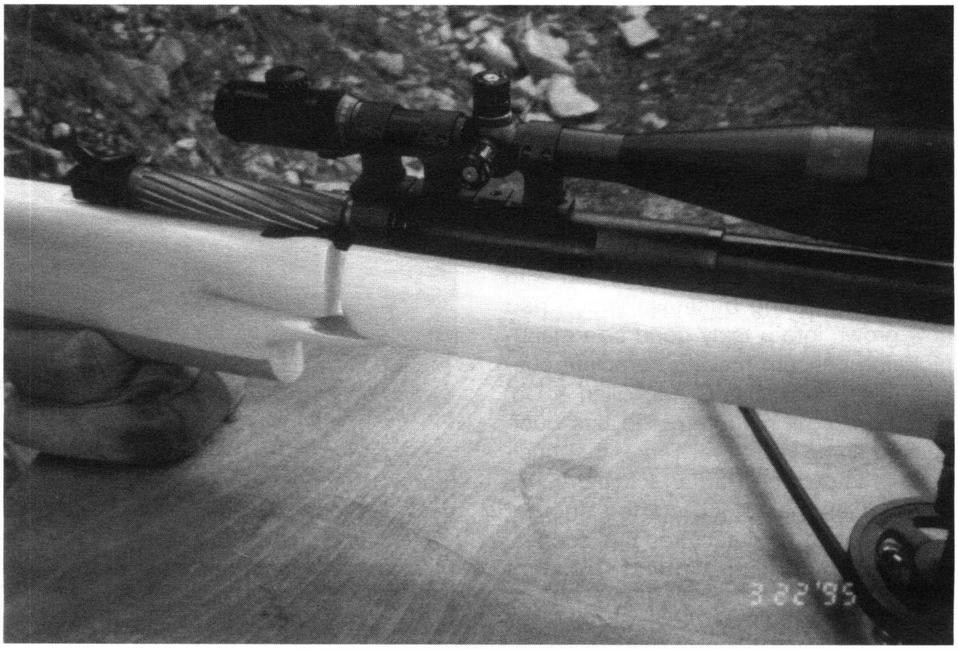
THE McBROS 50 BMG ACTION

by

Daniel Lilja



McBros Rifles president Rock McMillan, at the 1995 SHOT Show, with a 50 BMG rifle based on their box magazine version of the BMG action.



A McBros single shot 50 BMG action. Notice the helical flutes in the bolt, which combined with the case hardening, result in a very slick operating bolt.

To those not familiar with the 50 caliber BMG round, their first impression upon seeing a loaded round is; hey, that thing is BIG. Indeed, a 50 caliber round is big, even compared to our largest magnum rounds. And so it is with the McBros 50 BMG bolt action, designed for shoulder fired, sporting type rifles and full-blown benchrest rifles based on the 50 BMG round. The McBros action alone weighs as much as many sporter rifles, a full 7.5 pounds.

There are actually two versions of this action. The more common is the single shot variation, comprising about two thirds of McBros' orders. A box fed repeater is also offered. The only difference between the two is the addition of the 5-round magazine.

Before we begin discussing the McBros action in detail however, perhaps we should take a brief look at who McBros Rifle Company is, and isn't. Some understandable confusion exists about the various firearms related companies using the McMillan name.

In the beginning, two brothers from Arizona, named Pat and Gale McMillan started their businesses, catering to the gunsmithing needs of benchrest shooters. Both were active shooters and made some real contributions to the accuracy game early on. They made some quality bullet-making dies and single shot benchrest actions. Later, Pat built a company with an excellent reputation for making high quality match grade barrels.

Continued on next page

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THE McBROS 50 BMG ACTION

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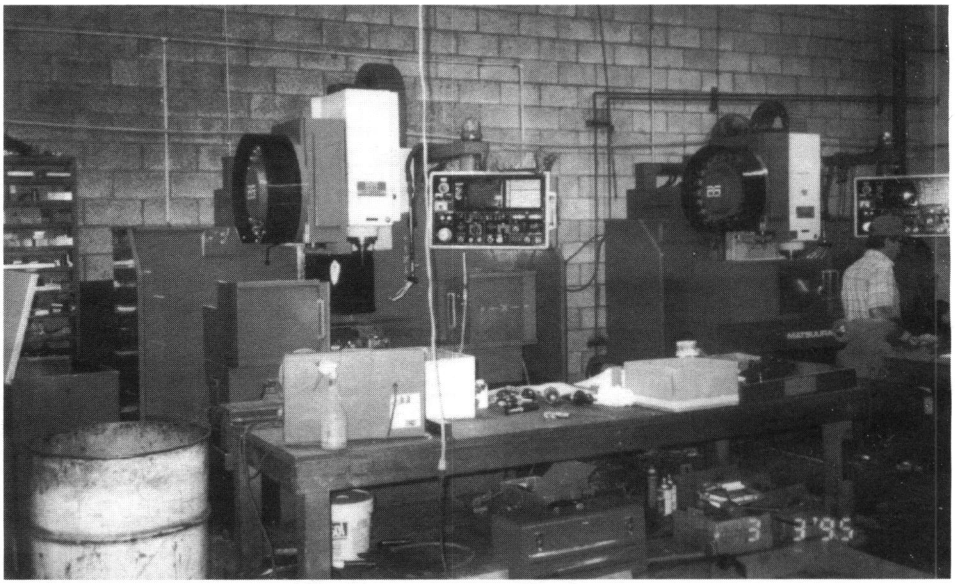

Two of McBros' Matsuura CNC milling machines. These machines perform the majority of the machining operations on the McBros actions.

Gale did some early development work with fiberglass stocks and started making them for his benchrest shooting friends. When I first met Gale, in about 1977, he was making fiberglass stocks and building target rifles.

Pat later sold his business to Bill Wiseman, who still manufactures barrels under the Wiseman/McMillan name. Gale turned over the stock manufacturing business to his son Kelly. Gale, along with another son, Rock, continued with their gunsmithing business which had now grown into a fairly good size manufacturing concern making complete custom rifles, known as G. McMillan & Co. Gale later sold his interest in this business to some investors. Today that business is known as Harris/McMillan Gunworks. Gale has since started another company that manufactures rifle scopes, known as McMillan Optical Gunsight Company.

In the meantime, Rock started his own business, manufacturing parts for G. McMillan Company. Today he markets custom rifles and the 50 BMG action and 50 caliber muzzle brakes under the McBros name. As indicated by the name, his brother Kelly has an interest in McBros too. Incidentally, Kelly's stock shop is just a few blocks from Rock's machine shop.

Rock's background includes an engineering degree from Arizona State University and 10 years of CNC machine shop supervision in other industries.

Gale McMillan has commented that this 50 BMG action is just a scaled-up version of their early benchrest action, which was designed for the little .222 Remington case. The overall length of the action is 12" and the diameter is 1.950". The massive bolt is 1.25" in diameter, as big as the breech end of most sporter barrels. Without a doubt, it is a big action designed for a big round.

I've had a chance to look at a few early McMillan benchrest actions and the similarity is quite noticeable. One distinguishing feature is the bolt design. The bolt is a "full diameter bolt". This means that the locking lugs and the bolt body are the same diameter. Also, the two lugs are in the horizontal position when the bolt is closed. This is opposite most bolts, whose lugs are vertical when locked up. An advantage to McMillan's system lies in the positioning of the extractor. It isn't necessary to make any machining cuts in or near the port side locking lug, which can weaken the lug to some extent. In the case of the McBros 50 BMG action, the extractor is a big Sako-type hook extractor. It is 5/16" wide and made from heat-treated 4130 steel.

The receivers are made from 4340 chrome-moly material, and heat treated to 45-48 Rockwell "C". The heat treatment of this receiver is a little unusual, in that it's done after the machining is completed. Many accuracy-minded action makers machine their actions after heat treatment in order to prevent the inevitable warping that occurs during the quenching stage. It's Rock's desire, however, to offer an extremely strong receiver, and machining heat treated material as hard as Rockwell "C" 48 would be both difficult and expensive. His solution is to have the receivers heat treated using a process called austempering. In practice, the part is brought up to temperature in molten salt and then quenched in another, cooler, salt pot. The only thing cool about this process is the near elimination of warpage. This heat treating is performed by a professional heat treater.

The only other operation not performed in-house is the initial deep-hole drilling of the bolt hole. This job is done by a company that specializes in that type of drilling.

After receiving the action blanks from the deep-hole driller, the bolt hole is honed to an internal diameter of 1.250/1.251" with a 32 micro finish. After honing, the receiver is mounted on an arbor and the outside of the action is turned to the 1.950" diameter and concentric to the inside bolt hole, to within .002". The front end of the receiver is then threaded in a slant bed CNC lathe made by Nakamura-Tome. The barrel shank thread size is 1.500" x 12 *TPI* with a 1.5" long thread shank. Most other operations on the receiver are performed on one of two Matsuura CNC milling machines.

Rock seems to especially like his milling machines. Some work that would normally be assigned to a lathe, is performed on the mill in his shop. For example, the receiver face is cut true with an endmill, as are the locking lug abutments inside the receiver. Another example of using the mill, where other manufacturers have alternate processes, is machining the lug raceways. Often this job is done on a shaper or broach, set up just for this

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A rack of in process 50 BMG actions in the McBros Shop.

one operation. Rock, however, cuts the raceways from the end using a small diameter end mill. I suspect that the reason for this is twofold. With the generous proportions of his big action, an end mill can get into these normally hard-to-reach areas. The second has to do with technology improvements. Today's multi-axis, computer-controlled machinery allows savvy machinists to do things that were just not practical before. The fewer times that a part — in this case the receiver — is handled, the cheaper it is to make. Also, the greater the number of operations that can be performed in one machine setup, the greater the accuracy of the part should be. For example, machining both the receiver face and the lug abutments in the same setup means that they should be completely parallel to each other.

Rock takes full advantage of the abilities of his 4-axis CNC mill. In the photograph, you will notice the neatly milled helical flutes in the bolt body. The bolt opening cam is another helix milled with the fourth axis. Even the lettering and serial number on the outside of the receiver are milled with the aid of the computer and a lettering software package. The cocking cam on the back end of the bolt is one more example of a helix being milled. And although I'll discuss its virtues later, the bolt closing cam is milled onto the bolt lugs in the mill.

The bolt is made from aircraft quality 9310 steel. Here again we find another example of wise material selection and excellent heat treating. This type of steel is referred to as a carburizing-type, lending itself to case hardening. It is similar to 8620, which has been widely used in making gears. Rock specifies that the bolts are to be gas carburized for a case hardness of 60 on the Rockwell "C" scale, and for a depth of .015"-.020". This results in a core hardness of about 38 Rockwell "C". One plus in using 9310 is the high hardenability of the core. This steel possesses a narrow hardness range between thick and thin sections too. The hard case results in a super-slick operating bolt, and one that will probably never gall. This material and heat treatment has a tensile strength of about 171,000 PSI and a yield strength of about 143,000 PSI. These two figures are derived from only the core hardness of this material. A metallurgist that I contacted regarding these strength values doubted that a thin case (.020" thick maximum) would add measurably to the strength of this part.

I wondered about the strength of this big bolt when compared to the amount of thrust generated by the 50 BMG cartridge. (The details of these calculations were discussed in an earlier article in PRECISION SHOOTING, June, 1995.) The McBros bolt has 2 lugs that are .600" wide and .76" long. The minor diameter of the bolt is .925". From these measurements, the total area in shear is .992 square inches. If we plug a peak chamber pressure of 65,000 PSI into the formula to simulate a fairly stiff handload, we find that the amount of bolt thrust generated is about 23,610 pounds. This thrust load is offset by the lug shear strength, which is approximately 70,950 pounds. This is a healthy margin, as it should be with a big cartridge like this. I also found that the bolt will flex about .0021" under this load, demonstrating again why it becomes necessary to bump case shoulders back between loadings.

The big 1.25" diameter bolt offers quite a bit of camming power. On the action that I checked, the cam retracted the bolt about .170". That's a lot of cam, more than any other bolt action that I'm familiar with.

A large loading port is milled into the action. It measures a full 5.5" by 1.25". With the bolt fully to the rear, I can extract an unfired TCCI or military loaded

Continued on next page

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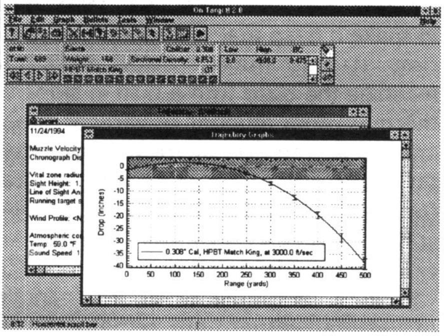

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THE McBROS 50 BMG ACTION

Continued

round. Pulling fired brass out is even easier.

As is common with full diameter bolts, the bolt stop is an externally pivoted pin that rides in a milled slot in the bolt body. This not only serves as a bolt stop, but also keeps the bolt lugs aligned with the raceways.

The McBros action is machined to accept a Remington type trigger. The trigger is held in place by cross pins. I like trigger carriers, but the pins will perform their job just as well.

With the single shot version, two other milling cuts become noticeable. They are two flats milled at 45 degrees from the vertical centerline, a little smaller than the size of the loading port. Because the action is round, there is a tendency for the action to torque in the stock under fire. These flats help control this action torquing. Without them, the torquing would be offset only by the 5/16-24 guard screws.

The bolt shroud is another product of the milling machine. It has nice lines, but the feature I like best is the ease with which it can be removed from the bolt. While most bolt shrouds are screwed into the back end of the bolt, the McBros has two ears milled on it. These ears fit into corresponding slots in the bolt, and with about an eighth of a turn, the entire firing pin assembly is either removed or reinstalled. No tools are required, just a reasonably strong grip.

The bolt handle appears to be rather firmly attached. A dovetail is milled into the handle where it attaches to the bolt, and slid over a matching dovetail milled onto the bolt body. The two are then silver-soldered together. The joint looks like it would stand up to quite a bit of abuse.

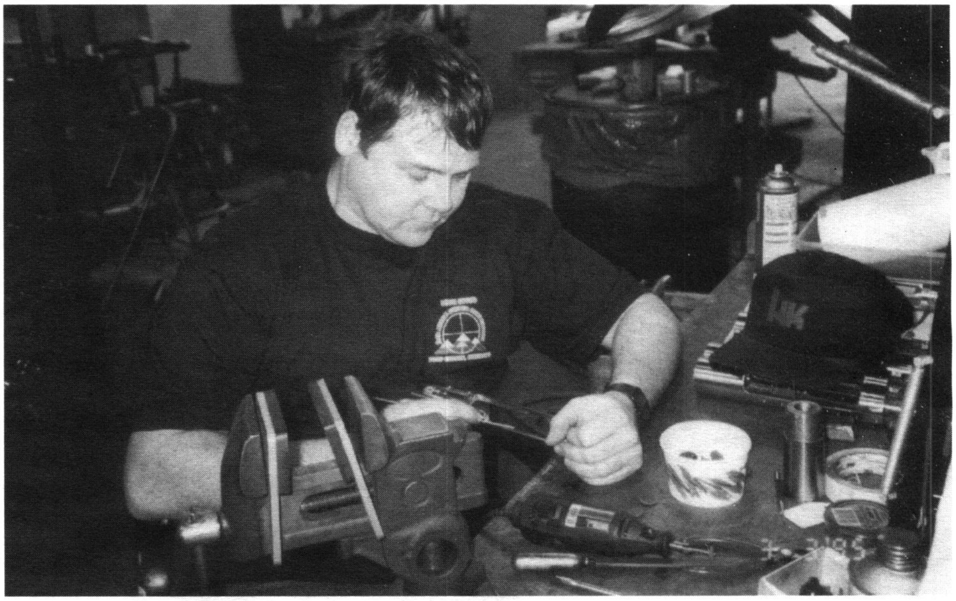
An ejector is furnished with the bolt, but probably not used often with the more popular single shot version. The recoil lug is big, like everything else associated with this action. It is a Remington style, and it's 3/8" thick. The lug is also made with a small pin that fits into a milled slot in the receiver face. This keeps the lug in alignment when barrels are screwed up tight.

A nice piece of standard equipment with the McBros action is the one-piece scope base. It's machined for a Weaver-style scope ring, which includes the Leupold MK 4 ring. I suspect that many of these actions will either start out with a Leupold MK 4 scope on top or end up with one later, after lesser scopes have taken their licks. So, it makes good sense to make a base that will accept the MK 4 ring. It also makes good sense to machine the base with a built in slope so the maximum amount of vertical scope adjustment can be utilized. Rock offers the bases with either a 1/2 or 1 degree forward cant. For use with the MK 4 scope, I would suggest the 1 degree version. This will work out just right for a 100 yard zero, leaving well over 100 minutes of vertical adjustment remaining, for reaching way out there where the 50 BMG was meant to play. The base is firmly held in place by six #10 screws.

Rock also offers the McBros 50 BMG action with a 378 Weatherby/416 Rigby bolt face. I recently barreled one of these actions for the 338/378 Weatherby case and it worked out well. This is more action than needed for this case, but it's not a bad choice, especially with a long, large diameter barrel. The barrel we used on that rifle was 1.850" diameter and 40" long. A big barrel on a big action.

There are just a few negatives that I can see with this nicely made action. In the closed position, the bolt handle doesn't protrude very much from the side of the action. This is fine if the rifle uses one of the two stocks that Kelly McMillan makes for this action, the Big Mac or Dual 50. But if it's put into a wider stock, like a Six Enterprises Unlimited stock, or a big laminated wood stock, the bolt handle is going to get lost. I had to re-forge one of these handles to get it to work in a Six stock.

I mentioned earlier that the closing



Gunsmith Don Johnson at his bench, performing some handwork on a repeater BMG action.

A 50 BMG benchrest rifle during a shooting session at 1000 yards. The scope is a Light Force 5.5x22 with 56 mm objective. The author has been putting this scope through the ringer on the 50. It has held up fine under the 50 BMG recoil and bullet holes can be seen in the target at 1000 yards!

cam is machined onto the bolt lugs. This is an acceptable and easy way to achieve this cam, but I feel that it's better to put the cam on the inside of the receiver. That is, as part of the locking lug abutment. It's much more difficult to cut there, requiring either a special machine designed just for that one operation or a sinker-type EDM machine. The disadvantage to having all of the cam on the lug is decreased contact area on the lug abutment. Although this doesn't decrease the bolt lug shear strength, it does put all of the back thrust onto a smaller area. Lug setback shouldn't be a problem with the McBros action because of its heat treatment, but that decreased contact area increases the potential for it.

I also feel that with any custom action, the locking lugs should be lapped into place. McBros will lap the lugs on these actions on request but it's not standard procedure. If the lugs are not lapped into place, the machine marks from the end mill are visible on the internal abutments. With the hardness of these action, it takes quite a bit of lapping to achieve near 100% contact and remove the mill marks.

One other quibble, which I've mentioned about other custom actions, is the lack of a serial number on the bolt. Sooner or later a mix-up is going to occur. The McBros action is furnished in the white with a heavy bead blasted finish. A few machine marks do show through though.

So you ask, who needs or wants a rifle chambered for the big fifty? Well, Rock says that business is brisk on the BMG action. There are probably two types of shooters drawn to the fifty. One type includes those who want the biggest of the big. They like it because of its sheer size, power and energy. These fellows probably use it mostly for plinking. Like shooting at rocks 1/2 mile away and other fun targets.

The second group is drawn to the fifty not so much because of its size, but rather in spite of it. They're looking for the ultimate in long-range performance and precision. Bullets with a ballistic coefficient of over 1.0 are available! Its flat trajectory and tremendous downrange energy is remarkable. As one fifty shooter I know commented, "I can see the fifty hit at 1000 yards with my bare eyes!"

The fifty has been used rather successfully for hunting at long-range too. A big game animal hit with a fifty out there dies just as quickly as one tipped over at close range with smaller arms. Others use it for benchrest shooting at 1000 yards. The Fifty Caliber Shooters Association was established, in part, to promote competition with the fifty and sponsors 1000 yard competitions around the country. A National match is held at the NRA Whitington Center near Raton, New Mexico each July.

It is here, in the competitive 1000 yard benchrest matches, that the McBros action has really shown its worth. At the 1994 Nationals the winners of both the light and heavy gun classes, Skip Talbot and Buddy Clifton, used rifles built on the McBros single shot action. Both Rock and Gale McMillan attended that match, too. Gale placed a respectable 8th in the heavy gun class. The McBros actions have been proven in other matches across the country, too.

An obvious concern about the 50 BMG has to do with recoil. Shooters not familiar with the fifties are certain that the recoil, if survivable, must be severe. The simple answer is: it's not. The recoil brakes available today are very effective at diminishing recoil. Considering that most of these rifles are quite heavy too, recoil is highly manageable. In the two classes supported by the 50 Caliber

Continued on next page

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THE McBROS 50 BMG ACTION

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Shooters Association, the light gun class allows for a rifle weight up to 32 pounds and the heavy class, up to 50 pounds. Admitting that recoil comparisons are highly subjective, I would say that firing a 50 pound fifty with a good brake is similar to shooting a .308 Winchester loaded with heavy bullets.

My wife has fired a fifty while out spring bear hunting and not been bothered by the recoil in the least. There's a big blast, but recoil is moderate.

In general, I'm really impressed with the McBros 50 BMG action. The material selections for the bolt and receiver are good, and the heat treatment is outstanding. The firing pin retention system is first rate, too. The overall appearance and lines are eye pleasing and tastefully done. Providing a scope base as well as the oversized, milled aluminum trigger guard, are nice extras not often furnished with custom actions. The actions are well-made, with everything square and parallel that should be.

For more information on the McBros 50 BMG action, contact Rock McMillan at:

McBros Rifles
P.O. Box 86549
Phoenix, AZ 85080
602-780-2115 or FAX 602-581-3825

For more information about the Fifty Caliber Shooters Association, they may be contacted at:

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Dear Editor:

This letter is in response to the article "Heavy Sand, a Product Review" by Dick Wright in Precision Shooting Vol. 40 #6.

Zircon sand, as stated in the article, is a useful product for the benchrest shooter. I believe however, that your readers may not be aware that there are alternative products available at a fraction of the cost of "Heavy Sand".

I recently acquired Garnet sand from my local Sandblaster/Painting contractor. He gave me more than enough material to fill my bags, and when I tried to pay him, he refused saying that it wasn't worth his time to bother with an invoice due to the low cost of the material.

The material that he provided me with was Almandite Garnet (formula Fe Al2 ($Si0_4$)), which according to the "Mineralogy" by John Sinkankas has a specific gravity of 4.32 grams per cubic centimeter. Specific Gravity is a measure of the density of a material in relation to water, ie; water is 1.0 gm/cc, lead is 10.6 gm/cc etc.

Typically, beach sand has a specific gravity ranging from 2.0 to 2.6 gm/cc, and therefore Zircon or Garnet sands would both be much better for benchrest bags due to their dense nature. Zircon (formula $Zr(Si0_4)$) according to Sinkankas comes in three major varieties: Low Zircon with a specific gravity of 3.94 to 4.10 (frequently radioactive) Intermediate Zircon with a specific gravity of 4.1 to 4.65 and High Zircon with a specific gravity of 4.65 to 4.71. Mineralogically, Garnet and Zircon are identical, both being single-island silicates (ie; both having an $Si0_4$ group.) The only significant difference being the presence of Zirconium in Zircon and Iron and Aluminum in the Garnet. The bottom line being that Zircon is only slightly denser than the Garnet.

If your readers really want to be exotic, and cost is not an object, I would suggest that they try to procure some magnetite (lodestone) sand from a precious metal smelter. Magnetite (formula $FeFe_20_4$) has a Specific Gravity of 5.18 and is a by-product of placer gold mining. As a material for filling benchrest bags, Magnetite would be superior to either of the above mentioned prducts.

Hopefully I have given your readers something to think about, and I wish them all the best the next time they are out on the range.

Sincerely,
M. D. Harting
Dayton, Wa.

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TURNING CASE NECKS

When turning case necks, the fit of the neck on the mandrel is critical. If the fit is a bit tight, friction can heat up the arbor, causing it to expand. This makes the fit even tighter, and worsening matters. Turning some 6 PPC brass this evening, I just couldn't seem to get it right: using a bigger expanding mandrel to give a free fit also resulted in looseness and inaccuracy. With snug fitting cases, accuracy was good but overheating and galling progressed to the point that cases began sticking on the arbor.

I routinely use STP as a lubricant on the arbor, but it didn't seem sufficient. Looking to improve lubrication, I mixed 30 ml (1 oz) of STP with 5 ml (1 tsp) each of white powdered mica and powdered graphite. Warm the STP by dunking the container in hot water, to make it thin enough to mix. This lube can be applied to the inside of the case neck or dabbed on the arbor. Either way, it seemed much better than plain STP, as overheating and galling disappeared completely.

I fear to mention the second benefit of this goop. You are supposed to cut brass dry, so the machinists among your readers may object. However, the inevitable contamination of the bit with this lube seemed to improve its cutting action: the chip came off in an even curl and the finish of the outside of the case neck seemed smoother than before.

It's messy, but if you try it you might like it too.

Frank L. Murphy
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stock, 2oz. Shilen trigger, Kelbly rings, $1200.00. 2) Shilen DGA LV Benchrest Rifle, new 6 PPC Hart barrel, 2oz. trigger, Lee Six stock, extra new 22PPC Hart barrel, lapped scope rings, $1400.00. 3) Remington XP100 Live Varmint Rifle, Davidson short sleeve, Lee Six stock, Burns cone bolt, new 223 Rem. Shilen barrel, $1150.00. Bob (307) 266-6614 MST.

FOR SALE: Winchester 52-C, Atkinson Stainless Steel Barrel, Kenyon Trigger, Fajen Prone Stock, Bedded. Excellent condition, very accurate. $750.00. Dick 402-564-2981 after 7:00 CDT

Light varmint/sporter 6PPC, Stolle Panda right bolt/left port, Hart barrel, Jewell trigger, Six gripless stock, Kelbly rings, 36X Leupold with crosshair. Built for 1994 season with all new components, smithed by Jim Borden. Produced a 0.073" screamer in a registered tournament, and quite a few groups in the low ones. 1081 shots fired since new. $1775 price includes neck/seating gauge, Lucas bore guide, rigid gun case, 45 pieces of Lapua brass, and shipping within the continental US. Toby (206) 616-1796.

For Sale: New Stolle Panda action, RB LP. Jim 319-689-6258.

Full Length sizing dies modified for Wilson neck bushings. Any caliber. $30.00. Jim 319-689-6258.

1) ELLIOTT REAMERS. Disposal sale. All calibers. Reamers, as new, $40 per reamer. Sets only. List SAE.

2) P&W Jig borer precision spacer set. (2) Micrometer heads plus (2) each spacing rods 1", 2", 3" and 6". Excellent $350.00.

3) Lyman super target scope. 12X crosshairs. VG $200.00.

4) Unertl 3/4" target scope. 25X fine crosshair dot. VG $100.00.

5) Weaver shotgun scope. 1X dot VG. $50.00.

6) Rem 40X RF Repeater walnut stock (also applicable to SS) semi-finished "D" grade, finished inletted, 1/2" barrel groove, crotch grain in buttstock. As new $100.00.

Available here, large assortment of desirable firearms books. VG state wants.

No Phone. Money orders only. Please include postage. Edward J. Trzeciak, 15 North Street, Sch'dy, NY 12305.

FOR SALE:

1 set 6mm Simonson carbide bullet dies, 8 ogives, $1,000.00.

1 set 6mm Deitch carbide bullet dies, 8 ogives. $1,000.00.

1 set 22 Cal. Simonson bullet dies. $650.00.

3 - RCBS Rockchuck Presses w/frames. $150.00 each.

100 lbs precut 48 grain lead cores.

40 lbs precut 41 grain lead cores.

Leupold 36X Silver w/Tucker conversion, late model, fine crosshairs. $500.00.

Leupold 36X Black, fine crosshairs, late model. $400.00.

New Oehler Chronograph w/printer & stands. Used once. $300.00.

Rem 540S - 22LR, mint condition, good shooter, beautiful wood. $550.00.

New Sinclair rest w/top. $300.00.

6 PPC Jones necksizing die w/stand. $60.00.

BARRELS: (All barrels threaded to Stolle Panda)

6mm Lilja fluted barrel - 920 rounds.

6mm LV Hart barrel - 610 rounds.

6mm Hart Number 2 LV - 350 rounds.

Lilja 22 Cal. Walldog fluted barrel. New, 40 rounds break-in.

Call MARVIN ROBERTS (307)577-7039.

1) Stolle Kodiak 1-16 Broughton 30x47BR, Jewell rings & trigger, T-6 Weaver, Six stock, Brass included, $1600.00.

2) 40X Hunter 1-15 Hart, 30 IHMSA, Armaloy finish. Dowling cone bolt, Jewell rings & trigger, Six stock, T-6 Weaver, $1600.00.

3) 40X Hunter 1-14 Hart, 30 IHMSA, Armaloy finish, Dowling cone bolt, Jewell rings & trigger, Six stock, T-6 Weaver, $1600.00.

4) 700 Rem. 1-14 Lilja, 30 IHMSA, McMillan Stock, $800.00.

5) Lyman 6XP $250.00.

6) Lyman/Siebert 25x36, $300.00.

Chris Wramp (210) 639-4965.

BENCHREST RIFLES FOR SALE:

1)Shilen DGA HV Benchrest rifle 6ppc, .262 neck, Hart barrel with beautiful walnut thumbhole, Shilen BR stock. Hart BR trigger. Extra .22 ppc Shilen barrel with Wilson dies. Davidson bases. Will shoot in LV class if put in fiberglass stock. $1150.00

2)Stolle Teddy LV, Right Bolt/Right Port, 6ppc, .262 neck, Hart barrel smithed by Hammonds. Jewell trigger. Adamovich stock. Custom paint. 2 extra 6ppc fluted barrels almost new. Kelbly rings and Leupold 36x silver scope. Great shooter. $2395.00 gets outfit.

3) Suhl 150 .22 rimfire Benchrest rifle in McMillan fiberglass stock. $585.00.

4) Leupold 24x scope fine crosshairs. $275.00.

Fred (704)249-4388 W, (704)243-1948 H

1) STEVENS 44 25/20 Good-Vgood condition - $495.

2) STEVENS 44 32/40 Tang site, Fecker's 15x scope, excellent condition, mint bore - $1200.

3) Custom 32/40 on Hoch action by Frank and Mark DeHaas. Wood and metal unfinished, includes sights and scope mount, super shooter - $1250.

4) 35/55 Bullberry Rifle Barrel (1.1") and fancy forend to fit T/C contender frame, like new - $250.

5) Custom Martini Action 32/40 Target Rifle, New Douglas Premium barrel, New Fajen stock, New target sights, wood & metal unfinished - $675.

6) Thompson Center TCR 32/40, New in box, Hi-polish Bull barrel, Fancy checkered walnut - $500.

7) Percussion Scheutzen gun in kit form, .45 cal., engraved lock, double trigger, hooked butt, fancy trigger guard - $475.

Call (516) 586-6826 days; (516) 588-7925 evenings.

Custom Switch Barrel Rem. 700 trued action, Davidson single shot ramp, Schneider SS barrels No. 5 contours, McMillan classic desert camo stock, Jewell 15 oz. trigger, pillar bedded, base and rings. .284 Win., 6 mm Ackley Imp., .250-3000 Ackley Imp. press dies all calibers, hand dies .250-3000, Leupold 3.5 x 10 50 mm scope. $1,400.00.

Barr & Stroud range finder 80 cm base, 14 power, 250 to 20,000 yard model, reads in meters, coincidence type, complete instruction book, conversion tables, wood carrying case, heavy duty wooden tripod. $950.00.

Rem. 78 trued action, 22 BR, Lilja barrel, McMillan stock, base, rings, hand dies, Jewell trigger, brass. $800.00.

Rem. 700 trued short action, Schneider 1-14 twist No. 6 contour SS barrel. Muzzle brake, factory wood pillar bedded stock, base, rings, Jewell trigger. $700.00.

Call 813-371-2247 if no answer leave no. for call back.

TransContinental League

National Conference Hunter Class May '95

EASTERN	W-L	NORTHERN	W-L	CENTRAL	W-L	SOUTH+WEST	W-L
CENTRAL FLA.	1-0	ENTIAT WA	1-0	NORTHERN COL	1-0	SAN JUAN NMX	1-0
CHIPPEWA OH	1-0	SNOW SHOE AK	1-0	CODY WYOMING	1-0	LAS VEGAS NV	1-0
DUNHAMS BY NY	0-1	TRI-COUNTY OR	1-0	LA. CAJUNS	0-1	AUSTIN TEXAS	1-0
RICHMOND CA	0-1	WEST MONTANA	0-1	TIFFIN I.W.L. OH	0-1	WEST TEXAS	1-0
SOUTH FLA	0-1	LaCROSSE WI	0-1	MENOM. FLS WI	0-1	CTBR TEXAS	1-0
CAPITL CITY ME	0-1	EASTERN CANADA	0-1	MENTOR OHIO	0-1	SALMON IDAHO	0-1

July 95 Schedule

SALMON IDAHO	NORTHERN COL.	TRI-COUNTY ORE.	DUNHAMS BAY NY
SAN JUAN NMX	ENTIAT WASH.	WESTRN MONTANA	CODY WYOMING
LAS VEGAS NEV.	SNOW SHOE AK	LaCROSSE WISC.	MENTOR OHIO
CTBRS TEXAS	EAST CANADA	CENTRAL FLORIDA	TIFFIN OH I.W.L.
AUSTIN TEXAS	CHIPPEWA OHIO	CAP. CITY MAINE	LA. CAJUNS
WEST TEXAS	RICHMOND CAL.	MENOM. FALLS WI	SOUTH FLORIDA

News and Views

by Bob Pease

Our two new clubs this year gave a creditable account of themselves. Ricmond, CA lost by one point to Las Vegas and actually out X'd them as well. Salmon, Idaho lost to a tough competitor Cody, Wyoming but did it with a very nice 1226 and 41 X's - not bad at all.

In the Eastern Division only Central Florida and Chippewa hit the win column. Northern Division shooters from Entiat, Snow Shoe and Tri-County Oregon came up heads for winners.

Northern Colorado and Cody, Wyoming remain clean in the Central Division. The South+West Division has a predominance of winners with San Juan, Las Vegas and Austin, TX staying undefeated. West Texas and CTBRS Texas also won their matches making five out of six in that division.

Fourteen "POSSIBLES" were fired during the matches. San Juan NMX topped with George Myer, Bill Thompson and Robert Thompson firing perfect 250's. Dick Dykama for Snow Shoe, Tony Seneca with Oregon and Dan Caruso of Dunhams Bay turned the trick. Entiat shooters Jack Brown and Joe Wiggs shot 'possibles' as did Cody Haslett of Idaho and Dave Flashey and Ron Bradford of Cody, WYO. Northern Colorado's Larry McDaniel managed a 250-16 to match Jack Brown's aforementioned high X'count possible'.

While our schedule is short, our 1995 point related schedule by Bill Cote has a tendency to balance and surprise as the season progresses. Several matches in the months ahead promise difficult challenges for some clubs with high scoring potential.

Stay Tuned!

T.C.L.
Hunter Class
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(707) 443-9027

TCL
Ameri~Con~News

Randy Robinett, Co-Director
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Madrid, IA 50156
(515) 795-2906

American Conference, Transcontinental Hunter Rifle League

BUSH MOB		BLACK STUMP MOB		BLIND FREDDY MOB		IN IT MOB	
LaGrande	1-0	Redwood	1-0	Mainville	1-0	Van Dyne	0-1
Buffalo	1-0	No. Colorado	0-1	No. Iowa	0-1	Billings	0-1
Dakota	0-1	Golden	0-1	Other Texans	0-1	Red Lodge	0-1
Aurora	1-0	Blue Grass	1-0	Holmen	1-0	Cen-Tex North	0-1
Michigan	1-0					Manila	1-0

Snow, rain, wind and empty bullet boxes greeted many teams as they lined up for their first match of the 1995 postal season. **Scott Carpenter** of Billings, Mt. woke up to four inches of snow on the ground. This didn't bother him or the other sixteen shooters that traveled for hours to shoot in Billing's first postal match of the season. They came from all over Montana and Wyoming to support this new club. Four-wheel drives were needed to set up targets... then it starts snowing again... and keeps snowing for the entire match. At times the targets are not visible; however they press on. At the conclusion of the match, there is ten inches of the white stuff on the ground. **Marv Roberts**, **Roger Schuppe**, **Jack Morris**, **Huck Hutson**, and **Scott Carpenter** wrestled the elements and conceded only thirty-two points to the blizzard and accumulated 39 "X's" in the process: Billings 1218-39X.

Over in Michigan, **Tom Cavanaugh** and some of the "Mis-Fits" were coming out of hibernation. The Mis-Fits scrounged around in closets, under their beds and pick-up trucks looking for their rifles... six were successful and made it to the range on the appointed day. The six that showed up put the league on notice... they intend to rearrange the top five rankings on the Wild Card list: **Mike Green (250-16X)**, **Jim Kampmen (250-12X)**, **Tom Cavanaugh** (248-0X), **Mark Cavanaugh** (247-12X), and **Rayford Wild** (247-11X). Gentlemen, that tallies up to: Michigan 1242-60X vs. Billings 1218-39X. Notice is here-by given... more Mis-Fits are sure to show next month, and they *will* seriously rearrange the American Conference Wild Card rankings this season.

Northern Colorado Coyotes, **Larry McDaniel (250-16x!!)** and **Bill (FF) Lofink (250-11X)**, were running the rain soaked Bozos expecting to corner them early in the season. With strong back-up from **Don Mulhall** (249-14X), **Chris Michael** (249-10X) and **Jack Duncan** (248-9X), it looked like the Bozos were the evening meal. You have to keep your eye on the clowns... the sun came out and the Bozo's went off into the "Bozone". **Joe Vecchio(250-18X)**, **Terry Patterson** followed with a 249-16X, and the other Bozo's lined up like ducks: **General Bozo** (249-14X), **Tom Larsen** (249-12X), and **Gary Buckner** (249-12X). Final tally came down to an "X" count race... Redwood slipped by 1246-72X vs. Northern Colorado 1246-60X.

Hold a seven for a beggar ten... a six for a "X": wind plays havoc with the Silver Bullets from Golden... this was a day for 190 gr. Match Kings in their .308's. Bringing only lightweight bullets to the match, they faltered... and Manila took advantage of the situation. With help from their 13-year old shooter, **Brandon Larsen (247-9X),** and his new 6 Madman, plus two new shooters, **Joe Cerami** (249-13X), and **Larry Wilson** (248-8X), Manila "blew" by the Silver Bullets: Manila 1237-46X vs. Golden 1214-37X.

The Mainville Pack, after a winter's hibernation, were ready to tangle with anything, even a group of Badgers. Tangle they did... in thirty-plus m.p.h. winds. The Pack jumped Van Dyne and never let up. **Dwight Furrow (250-13X)**, and **Vince Pastorella (250-12X)** were the first to jump in... **Gary Long** (249-13X) circled while **Bob Lembo** (248-12X) and **Guy Green** finished it off. Van Dyne's **Jim Kimpel (250-9X)** knew what he had to do... and did it. **John Puhl** (248-12X) did his best; however the situation quickly deteriorated from here. Mainville 1244-61X vs. Van Dyne 1238-52X.

Blind Freddy, with his .45-70, momentarily stunned the Aurora mob. **Lynn Hansen's** Doggers had it made until they scored Freddy's targets. Freddy (214-5X) closed his eyes for each shot because the recoil brought tears to his eyes. **Lynn Hansen** (248-10X) did his best; however he couldn't do it alone. Too bad... Freddy lost it for them. Aurora's **Wally Jones** (248-9X) was way ahead of the rest of the Aurora mob; Aurora 1192- 20X vs. Dakota 1184-31X.

No need for wind flags in Buffalo this month... the wind blown snow was easy to read. There is always a trade-off however; poor visibility hampered the Wyoming lads throughout the match. Persistence paid off... the Other Texans found more "X's", but didn't have the points to back them up; Buffalo 1214-25X vs. Other Texans 1205-26X.

Eleven shooters showed up for the first hunter match at Bluegrass... there was a scramble to make the top five this month. **Noah Hatton** (249-6X) carrying the flag for the 6 mm camp lead the way. **Mike Niblett** (248-8X) and **Jim Campbell** (247-9X) have changed over to .30 caliber's this season... both made a strong showing their first time around. **Dave Thomas** (247-14X) and **Jeff Clark** (246-8X) filled in the other slots with 6 mm's. Bluegrass jumped from the eighteenth team on the wild card list to number eight in their season opener... can they hold on? Red Lodge couldn't make it to their range due to the snow storm that was passing through. They will be back next month... Bluegrass 1237-45X.

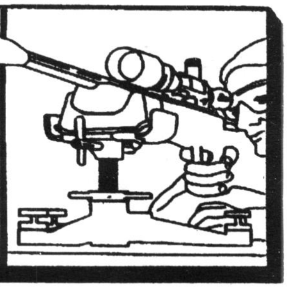
Ray Oines (247-8X), continues to out-point his Holmen team mates... when they catch-up, this team will surge ahead. Cen-Tex-North, with **Lee Cullins** and **Bill McLain** in a dead heat with 245-5X's were a bit sluggish out of the chute: Holmen 1211-32X vs. Cen-Tex-North 1191-2X.

The LaGrande Beavers stopped No. Iowa dead in their tracks. **Larry Bryant (250-13X)** and **Larry Cribbs (250-9X)** put the pressure on and Northern Iowa responded: **Randy Robinett** (249-17X), **Walker Robinett** (249-10X) and **Mike Bigalow** (249-(X). The pace was too quick... and No. Iowa stumbled. Both teams had a new shooter, **Dick Hohstadt** (247-9x) has the Beaver speed limit down, and **Art Check** (245-1X) is new to the Iowa team: LaGrande 1242-49X vs. Northern Iowa 1232-43X.

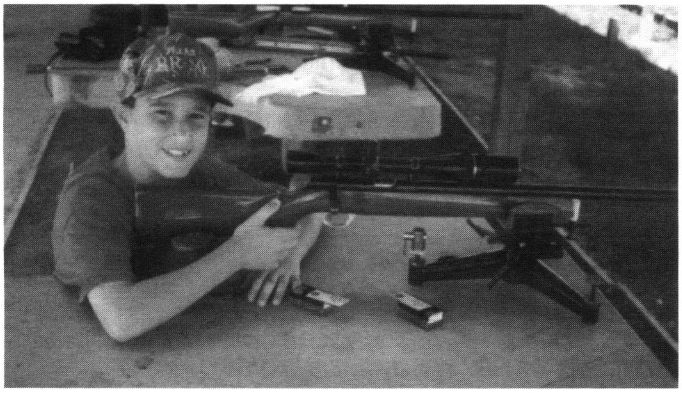
For Hunter Rifle Competition: General Bozo

BR-50 *International.*

LARRY W. BROWN / Competition Coordinator
405 West Washington #260
San Diego, CA. 92103 U.S.A.
Phone & FAX (619) 299-4455



May 10, 1995 - 57 clubs, 692 registered events



(VandenBout's the name, fanny-kickin's the game!)

Anyone who is a subscriber to Larry Brown's HOT-SHEET may have noted a new name in the top rankings, and wondered about it. Most would recognize the last name, VandenBout, but the first name is Josh, not Hank. Hank is the dad and Josh is the son. Look for Josh's name ABOVE dad's in the recent G-Line listings.

Now, it is not unusual for a son to best a dad occasionally, but Josh is only thirteen, and is handily giving dad, a recognized top-ranked BR-50 shooter, and lots of other adults, a drubbing at most outings this year.

While his equipment is some of the best available, this alone does not account for all his successes. It certainly doesn't hurt though, for you must have good "stuff" to shoot consistently and successfully. However, how you use it also makes a big difference! Josh has been using it quite effectively.

In Texas, where he shoots, the beginning of our season, and much of the year, we must contend with wind. I don't mean just wind, I mean *WIND!* Some of us old timers, who have done battle with it over the years, have come to respect it, and how much it moves a bullet, often in an unexpected direction. Josh, on the other hand, does not seem to have any of our old, preconceived notions about the wind, or how to shoot it. He just pays attention, watches the effects of previous shots, uses his sighters wisely, and places the bullets where they count most.

Dad would probably like to take the credit for teaching Josh all the tricks of how to be successful at this game. However, I've been present at many of the practice sessions and most all the matches where they shoot, since we usually travel together. I've seen some very basic coaching take place, like gun-handling and safety related skills, but for the most part, he has learned the techniques and skills from listening, experimenting on his own, and what appears to be plain, natural skill.

Dad seems a little confused about how to handle the situation. Fatherly pride is present, for certain. However, when the match results are posted, and Josh ranks above dad, Hank, who never likes to be second to anyone, tries to smile through it all. But if you've never seen a 6-foot 5-inch, 300 pound man cry, you haven't lived. And I have to ride home from the matches with them!

Not only is Josh a good shooter, but he is most helpful and accurate at scoring the targets. He is fully capable of acting in any capacity that the Match Director wishes to place him as to scoring, adding scores, or finding handicap percentages. In brief, he is an asset to the game, and I only wish we had more young shooters as part of the sport.

If you should have occasion to be present at a match where Josh is shooting, you can expect a formidable foe in this quiet, unassuming little guy. His consistent performances have won the respect of many shooters in our region. Like Robert Redford's movie title, this kid seems to have a lot of talent and could easily be dubbed "THE NATURAL".

For the sake of dad, myself, and other old timers who are a little tired of getting our fannies kicked by this thirteen year old upstart, I just hope he discovers girls, and soon!

Macky G. Locklin

__ANNOUNCING:__

SPRINGFIELD BENCHREST CLUB - Springfield, MO.

will host the

1995 FIOCCHI BR-50 NATIONALS

September 2 -3, 1995

Match Director: Dennis Sherman 417 / 732-1196

OZARK SHOOTERS

Branson, MO. - 3/28/95*

	(RIMFIRE)	Aggregate	Points-	update
1	Warren Camp	3324.7500	10-	10
2	**Glen Townley**	3308.5500	9-	19
3	Bob Mosley	3296.6187	8-	8
4	John Skinner	3291.6125	7-	7
5	Dearl Lane	3203.2920	6-	6
6	Don Hill	3178.0312	5-	5
7	Leonard Harper	3103.8281	4-	11
8	Mike Taylor	3101.4687	3-	4
9	Darrell Barnes	3013.8781	2-	7
10	Jim Massey	3013.6500	1-	3

CRISP BR-50

Cordele, GA. - 4/9/95***

	(RIMFIRE)	Aggregate	Points-	update
1	Jack Jones	4048.7500	10-	10
2	Travis Mims	3904.5000	9-	9
3	Tim McWhorter	3804.0625	8-	8
4	Gary Mitchell	3785.2500	7-	7
5	Alan Fulford	3747.5156	6-	6
6	Jim Cannington	3559.7031	5-	5
7	Bill Horan	3493.5000	4-	4
8	Steve Bonner	3450.9375	3-	3
9	Hoke Kerns	3442.1250	2-	2
10	Rex Beard	3278.8687	1-	1
		Match #2		
1	Tim McWhorter	4652.2656	10-	18
2	Travis Mims	4161.3750	9-	18
3	Jack Jones	3905.2500	8-	18
4	Ron Bradley	3844.6000	7-	7
5	Alan Fulford	3567.5937	6-	12
6	Steve Bonner	3461.1625	5-	8
7	Gary Mitchell	3450.5000	4-	11
8	Bill Horan	3365.0625	3-	7
9	Rex Beard	3268.6381	2-	3
10	Martin Hendrix	3054.0281	1-	1
		Match #3		
1	**Tim McWhorter**	4472.3437	10-	28
2	Gary Mitchell	3785.2500	9-	20
3	Travis Mims	3699.0000	8-	26
4	Alan Fulford	3660.1250	7-	19
5	Jack Jones	3587.5000	6-	24
6	Bill Horan	3539.7375	5-	12
7	Martin Hendrix	3447.9312	4-	5
8	Rex Beard	3412.2812	3-	6
9	Ron Bradley	3394.7000	2-	9
10	Steve Bonner	3374.2500	1-	9

MIAMI RIFLE & PISTOL CLUB

Milford, OH. - 4/9/95*

	(RIMFIRE)	Aggregate	Points-	update
1	**Dean Grua**	3482.4625	10-	19
2	Paul Zint	3389.2312	9-	9
3	John Leonhart	3075.4996	8-	16
4	Bruce Buckner	3016.0687	7-	7
5	Ed Ledbetter	2906.8375	6-	16
6	Paul Hittle	2890.1375	5-	8
7	Richard Wendt	2884.0000	4-	6
8	Ray Doss	2881.6875	3-	9
9	Kenny Evans	2753.4375	2-	7
10	Harry McElhiney	2626.7657	1-	8

SOUTHERN CAL BR-50

San Diego, CA. - 4/23/95*

	(RIMFIRE)	Aggregate	Points-	update
1	**Howard Pray**	4245.9687	10-	29.5
2	Jim Bell	3755.0437	9-	23
3	Jim Taylor	3692.4100	8-	19
4	Mark Pfafflin	3525.4687	7-	15
5	Stan Hill	3464.3250	6-	20
6	Chris Dolan	3364.1812	5-	5
	(AIRGUN)			
1	**Charline Pray**	3896.1843	10-	30
2	Larry Brown	3668.2500	9-	9
3	Mark Pfafflin	3552.1343	8-	8

CADDO RIFLE & PISTOL

Shreveport, LA. - 4/8/95**

	(RIMFIRE)	Aggregate	Points-	update
1	Mike Wester	4135.6875	10-	10
2	Grant Pickard	4009.6875	9-	9
3	Marion Collier	3936.6250	8-	8
4	James Mock	3736.1250	7-	7
5	Mike Drummond	3704.7625	6-	6
6	James Pappas	3686.8250	5-	5
7	John Ulrich	3657.0187	4-	4
8	Nick Pappas	3102.0750	3-	3
9	Kent Bennett	2679.7156	2-	2
10	Mike Barr	2220.7500	1-	1
		Match #2		
1	**Marion Collier**	3783.2500	10-	18
2	**Grant Pickard**	3685.8281	9-	18
3	**Mike Wester**	3411.3000	8-	18
4	James Mock	3075.0000	7-	14
5	Nick Pappas	2975.3562	6-	9
6	John Ulrich	2914.3468	5-	9
7	James Pappas	2837.6125	4-	9
8	Mike Drummond	2801.6625	3-	9
9	Kent Bennett	2710.1093	2-	4
10	Mike Barr	2272.1562	1-	2

FRANKENSTEIN BR-50

Frankenstein, MO. - 4/8/95**

	(RIMFIRE)	Aggregate	Points-	update
1	Glen Townley	4420.9375	10-	17
2	Jim Morton	3927.0000	9-	9
3	Jim Scrivner	3702.0313	8-	8
4	Don Hill	3688.9688	7-	7
5	Mike Mantle	3646.5000	6-	6
6	Albert Mantle	3544.5000	5-	14
7	Bob VanArk	3512.5313	4-	4
8	Lew Massie	3417.5750	3-	3
9	Barry Hendrix	3363.0156	2-	2
10	Donna Brown	3311.6719	1-	2
		Match #2		
1	Jim Morton	4166.7000	10-	19
2	Ed Muff	4007.2500	9-	15
3	**Glen Townley**	3932.5781	8-	25
4	*Ray Brown @*	*3883.1250*	7-	*7*
4	Barry Hendrix	3784.0344	7-	9
5	Mike Mantle	3621.0000	6-	12
6	Lew Massie	3582.4500	5-	8
7	Jim Scrivner	3497.7831	4-	12
8	Gene Adkins	3408.3000	3-	3
9	Heath Townley	3393.9844	2-	2
10	Donna Brown	3373.2844	1-	3

OIL CAPITAL ROD & GUN CLUB

Tulsa, OK. - 4/15/95**

	(RIMFIRE)	Aggregate	Points-	update
1	Jim Morgan	3522.3125	10-	10
2	David Rinn	3492.3750	9-	9
3	Red Cornelison	3464.3596	8-	8
4	Scott Gray	3431.4219	7-	7
5	Warren Camp	3398.2031	6-	6
6	Tim Mathena	3374.2500	5-	5
7	Eddie Garrett	3210.5656	4-	4
8	Randy Smith	3179.5313	3-	3
9	Ernest Serrano	3176.8750	2-	2
10	Sam Lair	2991.8688	1-	1
		Match #2		
1	**Scott Gray**	3917.3313	10-	17
2	Dick Jaeschke	3549.1875	9-	9
3	Charlie Ratliff	3244.0000	8-	8
4	David Simpson	3180.6344	7-	7
5	Ernest Serrano	3010.7000	6-	8
6	Tim Mathena	2965.2500	5-	10
7	Warren Camp	2864.5594	4-	10
8	Randall Nutter	2850.2688	3-	3
9	Mark Moseley	2825.0000	2-	2
10	Randy Smith	2589.0469	1-	4

ALBANY BR-50

Albany, GA. - 4/8/95***

	(RIMFIRE)	Aggregate	Points-	update
1	Tim McWhorter	4189.6093	10-	10
2	Gary Mitchell	3965.5000	9-	9
3	Steve Bonner	3574.3750	8-	8
4	Travis Mims	3478.0875	7-	7
5	Jack Jones	3386.4000	6-	6
6	Jim Cannington	3270.8813	5-	5
7	Hoke Kerns	3236.6250	4-	4
8	Martin Hendrix	3219.6938	3-	3
9	Rex Beard	3218.9063	2-	2
10	Bill Horan	3103.0500	1-	1
		Match #2		
1	Tim McWhorter	3932.5781	10-	20
2	Gary Mitchell	3759.5000	9-	18
3	Steve Bonner	3650.9688	8-	16
4	Travis Mims	3426.7125	7-	14
5	Jack Jones	3354.8281	6-	12
6	Martin Hendrix	3316.9500	5-	8
7	Jim Cannington	2851.1438	4-	9
8	Hoke Kerns	2799.9375	3-	7
9	Rex Beard	2646.6563	2-	4
10	Bill Horan	2553.3375	1-	2
		Match #3		
1	**Tim McWhorter**	3983.9844	10-	30
2	Jack Jones	3790.1875	9-	21
3	Gary Mitchell	3702.8500	8-	26
4	Steve Bonner	3676.5000	7-	23
5	Hoke Kerns	3452.4000	6-	13
6	Rex Beard	3356.8594	5-	9
7	Jim Cannington	3322.0688	4-	13
8	Travis Mims	3310.6875	3-	17
9	Martin Hendrix	3004.7063	2-	10
10	Bill Horan	2198.8500	1-	3

CENTRAL INDY BR-50

Indianapolis, IN. - 4/8/95**

	(RIMFIRE)	Aggregate	Points-	update
1	Bill Calfee	3707.5312	10-	17
2	B.J. Mayer	3707.0312	9-	9
3	Tom Bradford	3703.5000	8-	17
4	Dean Grua	3634.0625	7-	10
5	Bill Mann	3620.3437	6-	6
6	Selby Wright	3515.4000	5-	5
7	Larry Delong	3367.1250	4-	14
8	John Murner	3317.0062	3-	3
9	Steve Hurst	3252.8250	2-	8
10	Bill Crafton	3200.4250	1-	1
	(AIRGUN)			
1	Jim Dailey	4238.2031	10-	10
2	Dick Marshall	4156.2375	9-	19
3	Ed Ledbetter	4140.4687	8-	15
4	Shirley Marshall	4070.2812	7-	15
5	Anthony Storey	3797.1250	6-	12
6	Howard Chapman	3102.1812	5-	10
7	Darrell Mote	2955.3750	4-	7
	(RIMFIRE)	**Match #2**		
1	Bill Mann	4118.7969	10-	16
2	**Tom Bradford**	3893.8187	9-	26
3	Larry Delong	3854.0000	8-	22
4	Steve Hurst	3822.4125	7-	15
5	Dean Grua	3759.3750	6-	16
6	B.J. Mayer	3580.0781	5-	14
7	John Pettit	3410.2031	4-	8
8	Selby Wright	3400.3125	3-	8
9	John Leonhart	3375.3375	2-	9
10	Lee McFarland	3232.6875	1-	1
	(AIRGUN)			
1	Anthony Storey	4489.8437	10-	22
2	**Dick Marshall**	4474.7812	9-	28
3	Ed Ledbetter	4441.5937	8-	23
4	Shirley Marshall	4424.2187	7-	22
5	Jim Dailey	3706.5468	6-	16
6	Darrell Mote	3610.9687	5-	12
7	Howard Chapman	3030.0375	4-	14

DADE CITY BR-50

Dade City, FL. - 4/16/95**

	(RIMFIRE)	Aggregate	Points-	update
1	Patricia Smith	4120.8750	10-	40
2	Ed Hisey	3874.0937	9-	33
3	Ellis Hamilton	3782.8125	8-	20
4	Dave Smith	3605.0000	7-	26
5	Ken Weglarz	3202.9156	6-	6
6	Bob Cary	2993.0000	5-	18
		Match #2		
1	Dave Smith	3914.0000	10-	36
2	**Patricia Smith**	3891.9375	9-	49
3	Bob Cary	3879.6250	8-	26
4	Ed Hisey	3386.6250	7-	40
5	Ken Weglarz	3303.4781	6-	12
6	Ellis Hamilton	2769.0187	5-	25

CENTRAL ALABAMA BR-50

Montgomery, AL. - 4/15/95***

	(RIMFIRE)	Aggregate	Points-	update
1	Tim McWhorter	3806.3750	10-	10
2	Hoke Kerns	3660.1250	9-	9
3	Travis Mims	3547.0312	8-	8
4	Ron Bradley	3527.6250	7-	7
5	Gary Mitchell	3460.8000	6-	6
6	Jack Jones	3446.1000	5-	5
7	Rex Beard	3152.5063	4-	4
8	Steve Bonner	3093.8031	3-	3
9	Clarence Johnson	3000.9375	2-	2
10	Robert Hutchinson	2948.5063	1-	1
		Match #2		
1	Tim McWhorter	3754.9375	10-	20
2	Gary Mitchell	3656.5000	9-	15
3	Jack Jones	3610.2000	8-	13
4	Rex Beard	3527.3156	7-	11
5	Clarence Johnson	3480.4688	6-	8
6	Travis Mims	3480.2031	5-	13
7	Ron Bradley	3190.2000	4-	11
8	Steve Bonner	2696.2468	3-	6
9	Martin Hendrix	2625.9188	2-	2
10	Raymond Brown	2442.9000	1-	1
		Match #3		
1	**Tim McWhorter**	3626.3437	10-	30
2	Jack Jones	3538.4062	9-	22
3	Travis Mims	3505.9062	8-	21
4	Ron Bradley	3394.7000	7-	18
5	Gary Mitchell	3090.0000	6-	21
6	Clarence Johnson	2970.0000	5-	13
7	Rex Beard	2782.8312	4-	15
8	Raymond Brown	2769.3000	3-	4
9	Hoke Kerns	2755.3750	2-	11
10	Martin Hendrix	2702.7000	1-	3

LINCOLNWAY SHOOTING CLUB

Jefferson, IA. - 4/15/95**

	(RIMFIRE)	Aggregate	Points-	update
1	Rich Hidlebaugh	2889.4600	10-	10
2	Jerry Peckumn	2784.6000	9-	9
3	John Cloepfil	2773.9400	8-	8
4	Kirk Citurs	2651.6900	7-	7
5	Robert Grandfield	2535.1000	6-	6
6	Darrell Troxel	2459.6000	5-	5
7	Mike McConnell	2263.5900	4-	4
8	Mike Jensen	2241.2500	3-	3
9	Paul Johnson	2233.3400	2-	2
10	Terry McDowell	2046.4500	1-	1
		Match #2		
1	**Jerry Peckumn**	2943.2800	10-	19
2	**Rich Hidlebaugh**	2899.8800	9-	19
3	John Cloepfil	2789.0400	8-	16
4	Terry McDowell	2292.8200	7-	8
5	Robert Grandfield	2060.4000	6-	12
6	Mike McConnell	1938.7500	5-	9
7	Mark Rush	1878.7200	4-	4
8	Paul Johnson	1611.0000	3-	5
	Darrell Troxel	DNF-----------		
	Lon Morgan	DNF-----------		

50/50NEWS

Milt Cook
Match Director
PO Box 27
Ranson, WV 25438
304-725-7251
PS Update

a newsletter for International Rimfire 50/50 competitors

WILDERNESS ROAD SHOOTING & CONSERVATION CLUB

3-19—Gate City, Virginia—Robert Price #615-247-5859

13½ CLASS	ACTION-BARREL-SCOPE-AMMO	SCORE
1 Sam Arnett	Ans54/Fac--Leu/36--Eley	236–6x
2 Glynn Angle	Brno#4/Fac--Tas/6x24--Fiocchi	233–3x
3 Mike Barger	Vostok/Fac--Tas/24--Fiocchi	230–6x
10½ CLASS		
1 Larry Faust	Ans1700/Fac--Leu/6x20--Tenex	231–3x
2 Gary Crawford	Sako/Fac--Wea/4x16--BRGold	224–3x
3 Glynn Angle	Rug77/22/Volq--Wea/15--FioV320	223–2x
SPORTER		
1 Glynn Angle	Sako--Wea/4x6--BRGold	218–4x
2 Gregg Smith	Brno--Leu/6.5x20--R-50	217–4x
3 William Pendleton	Rem541--Bur/6--Eley	212–2x

*Note: This match was shot in very windy conditions.

FT. BLISS ROD & GUN CLUB

4/9—El Paso, Texas—Our first 50/50 match was blessed with west Texas spring winds. We had ten brave shooters....Charlie Gagnon #915-855-4194

13½ CLASS	ACTION-BARREL-SCOPE-AMMO	SCORE
1 John Wicker	Rem40x/Fac--Leu/36--EleyBR	235–9x
2 Mark Smith	Brno/Fac--Leu/6.5x20--FioV320	216–2x
3 Mike Stover	Rem541THB/Fac--Red/10--CCI-Std	214–2x
10½ CLASS		
1 Rudy Smith	Brno/Fac--Leu/36--RWS	228–3x
2 Jerry Klein	Ans64/Fac--Tas/36--Tenex	227–5x
3 Charlie Gagnon	Rem541S/Ans--Tas/24--Eley100	223–4x
SPORTER		
1 Charlie Gagnon	Rem541T--Bur/6--Eley100	214–0x
2 John Wicker	Kimber--Leu/3.5x10--EleyBR	213–3x
3 Rudy Smith	Rem541S--Bur/6--EleyBR	204–2x

UTAH 50 YD STATE CHAMPIONSHIP

August 26
Wahsatch Shooters Association
Clearfield, Utah
Kolin Vance #801-546-2361

BLACK CREEK SHOOTERS ASSN.

4-23—Mechanicsville, Virginia—Our first match was a success. We shot 25 targets and conditions were as good as they get around here, which resulted in high scores. People seemed to enjoy the match and I think it will grow in the future....K.C. Young #804-781-0267

13½ CLASS	ACTION-BARREL-SCOPE-AMMO	SCORE
1 K.C. Young	Ans54/Fac--Leu/36--EleyGold	248–12x
2 C.L. Stevens	Suhl/Fac--Tas/36--RWS R-50	247–11x
3 Denny Antonious	Win52B/Fac--LtForce/40--FedGold	245–13x
10½ CLASS		
1 K.C. Young	Ans54/Fac--Leu/36--EleyGold	247–12x
2 Denny Antonious	WaltherULT/Fac--Leu/36--FedGold	245–14x
3 Rosalie Young	Rem37/Fac--Leu/36--FioV320	243–10x
SPORTER		
1 Bill Myers	SakoP94--Bur/6--EleyGold	242–7x
2 K.C. Young	SakoP94--Bur/6--EleyGold	240–8x
3 Henry Vranian	Rem541S--Leu/4x12--Fed Gold	232–7x

NORTH CAROLINA 50M STATE CHAMPIONSHIP

August 19
Alleghany Rifle Association
Sparta, North Carolina
Lamon Loggins #910-372-4143

RIDGE RIFLE ASSOCIATION

4/29—Roanoke, Virginia—We had our best turnout ever with fourteen shooters. We shot 36 targets and had a good stiff spring breeze. Milt Cook and his son-in-law, Steve Scott, came down and shot with us and they are "tuff". This is going to be a great year for 50/50. Come shoot with us.....Glynn Angle #703-342-2479

I couldn't resist showing these results. Steve and I had a great time and for anyone planning on attending matches at this club, try not to get too upset if a 13 year old girl beats you. Amy Rose is definitely a benchrest competitor....Milt

13½ CLASS	ACTION-BARREL-SCOPE-AMMO	SCORE
1 Gary Crawford	Ans54/Fac--B&L/36--R-50	243–6x
2 Milt Cook	Ans54/Fac--Unertl/20--UltraMat	242–8x
3 Amy Rose	Win52/Fac--Unertl/16--Tenex	241–4x
10½ CLASS		
1 Milt Cook	Brno4/Fac--B&L/36--UltraMat	243–13x
2 Steve Scott	SprgfldM2/Shilen--Tas/36--Tenex	235–4x
3 Glynn Angle	Rug77-22/Volquar--Wea/15--Tenex	232–2x
SPORTER		
1 Glynn Angle	Sako--Wea/4x6--EleyGold	239–6x
2 Milt Cook	Sako--Bur/6--EleyGold	233–7x
3 Jim Graham	Rem541T--Bur/6--Fiocchi	229–4x

If you check the results to the left for the Black Creek Shooters, you will see that Bill Myers, who shoots at the Jefferson County Izaak Walton in Leetown, West Virginia, traveled to Mechanicsville and really had his Sako smoking, winning the Sporter Class with a score of 242–7x. Being smart enough to take advantage of a .22 when it's hot, he then traveled to Lexington and "cleaned their clocks" by scoring a 245–6x, again in the Sporter Class. But should we mention what Inez McCaughan did to Bill at the Leetown shoot on 5/14? Shooting the gun he made for her, she beat him in the 13½ Class and in the 10½, he barely beat her in a tiebreaker. Inez is pretty smart, she married Bill on May 27. Did she make this decision because Bill is such a good gunsmith?.....Milt

BLUE GRASS SPORTSMAN'S LEAGUE

5/7—Lexington, Kentucky—Brenda Greiner #606-254-7895

13½ CLASS	ACTION-BARREL-SCOPE-AMMO	SCORE
1 Mike Niblett	Win52D/Fac--Leu/36--Fiocchi	244–8x
2 Gene O'Dell	Suhl150/Fac--Leu/36--EleyGold	243–11x
3 Garry Greiner	Suhl150/Fac--Leu/24--Tenex	243–9x
10½ CLASS		
1 Garry Greiner	Suhl150/Fac--Leu/24--Tenex	247–14x
2 Gene O'Dell	Suhl150/Fac--Leu/36--EleyGold	247–10x
3 Jeff Clark	Rem540x/Fac--Tas/36--Tenex	244–12x
SPORTER		
1 Bill Myers	SakoP94--Bur/6--EleyGold	245–6x
2 Phillip Dadisman	Rem541S--Leu/6--Fiocchi	242–7x
3 Garry Greiner	WaltherKKJ--Bur/6--Fiocchi	241–8x

IBS News

Edited by Dave Brennan

President's Message

Having attended all of the two day group events for IBS to date, I feel it necessary to point out that attendance has been somewhat lower than last year at the same events. I hope this situation will not continue throughout the season. Please do what you can to attend those shoots which you are able and support the efforts of the clubs/people staging those shoots. Continued events may depend upon your participation in upcoming matches.

I have received some favorable comments about the recent practice at IBS matches of rotating benches only at yardage or class changes. In fact, several of the comments came from NBRSA shooters who expressed the desire that their organization might do the same. I would value your opinion as an active competitor on this practice.

Another possible event for which I need member input is a major money/merchandise group shoot for IBS in 1996. Would you be in favor of (translated as "would attend") such a shoot, perhaps on the Palmisano range during the '96 benchrest season if it didn't conflict with any other major shoot. If you would be in favor, when do you feel would be the best time to hold such a match and for what classes of competition?

Some disturbing news came to my attention recently. Specifically one club presently holding registered matches might have to cancel or severely curtail activities for '96 since the main spark plug in this club will be taking on a new job. Problems with IBS clubs and with the person mainly responsible for conducting these matches on a given range have caused us to lose some ranges over the years. If you as the main mover in a club or your range are experiencing difficulty with continued operation please contact me and explain your problem. I don't say I can solve the problem for you but I certainly will try to use IBS influence or means to help you continue operating.

As you may have read in our ads for the IBS Group Nationals we are soliciting donations of cash and merchandise for distribution at this event in August. If you or your company would be willing to donate please contact Jim Borden whose address and phone number appear in ads in PS or Hal Toland, 2154 Kay St., Longmont, Co. 80501. Attractions such as this tend to boost attendance and help assure a strong national event now and in the future.

Also relating to the Group Nationals in August, please contact me if you are willing to participate in a work party at the Palmisano range. We will be making preparations on the following dates: August 5, 6, 10, 11 and 12. I sincerely hope to hear from any of you who can volunteer your efforts.

Preparations are well under way to make the first IBS 1000 Yard Nationals at Quantico, Virginia a truly memorable event. The Virginia club expects to have embroidered patches for all participants, a good selection of awards for the top shooters and in all probability merchandise available to the shooters lucky enough to win it. How about supporting this effort by attending and participating as I intend to do.

I expect you readers love this sport as much as I do. For this reason and to keep our activities healthy and growing, I urge you to support pro firearms legislation and activities. By the same token you must call or write your legislators when your second amendment rights are jeopardized. Remember vigilence is essential if we are to avoid the undermining of our firearms entitlements.

Continued good shooting.
Bob White

DUNHAM'S BAY

March 19th was the date, with good weather, and two full days to recover from whatever silly things you were doing on St. Patrick's Day. Over 50 shooters showed up at The Bay for the two classes to be contested (heavy varmint and hunter class).

Heavy varmint class (45 shooters): 1.) Jim Greene .2098, 2.) Sandy Soriano .2384, 3.) William Giel .2426, 4.) Howard Levy .2598, 5.) Myles Hollister .2648, 6.) Bob Latino .2720, 7.) Bob Lembo .2744, 8.) Don Sargood .2822, 9.) Bill Niemi .2876, 10.) Robert Denton .2962.

Hunter class (10 shooters): 1.) Ira Farnsworth 248-7x, 2.) Bill Niemi 247-10x, 3.) Brian Niemi 247-6x.

WINNING EQUIPMENT (HV)

Plc	Name	Cal	Action	Barrel	Gunsmith	Stocker	Scope	Case	Powder	Primer	Bullet
1	JIM GREENE	6	HALL	HART	?	MCMILLAN	TAS 36X	NORMA	26.5 2015	205M	BERGER 68
2	S. SORIANO	6	STOLLE	HART	DIXON	DIXON	LEU 36X	LAPUA	28.0 322	205M	SELF 68
3	BILL GIEL	6	STOLLE	HART	DIXON	DIXON	LEU 36X	LAPUA	27.8 H322	205M	EUBER 68
4	HOWARD LEVY	6	XP 100	SHILEN	MEYER	GEENWALT	B&L 36X	LAPUA	? GI 322	205M	SELF 68
5	M. HOLLISTER	6	WICHITA	BROGHTON	SELF	DIXON	LEU 32X	SAKO	28.6 N 201	205M	NIEMI 68
6	BOB LATINO	6	STOLLE	HART	DIXON	R&M	LEU 36X	SAKO	27.5 H322	205M	EUBER 68
7	BOB LEMBO	6	WICHITA	HART	MASKER	MEYER	LEU 36X	NORMA	? 2015	CCI	EUBER 68
8	DON SARGOOD	6	WICHITA	MCLENNON	DIXON	DIXON	B&L 36X	SAKO	28.0 H322	205M	HOLLIST. 68
9	BILL NIEMI	6	NIEMI	NIEMI	NIEMI	NIEMI	LEU 36X	SAKO	27.5 2015	205M	NIEMI 68
10	BOB DENTON	6	STOLLE	HART	MASKER	MASKER	LEU 36X	LAPUA	27.7 H 322	FED	SELF 68

WINNING EQUIPMENT (HUNTER)

Plc	Name	Cal	Action	Barrel	Gunsmith	Stocker	Scope	Case	Powder	Primer	Bullet
1	I. FARNSWORTH	30I	REM 700	NIEMI	SELF	STANNARD	LEU 6X	R-P	34.8 V133	210M	SIERRA 168
2	BILL NIEMI	30V	REM 700	NIEMI	NIEMI	NIEMI	BUR 6X	WIN	38.0 2015	210M	NIEMI 125
3	BRIAN NIEMI	30V	REM 78	NIEMI	NIEMI	NIEMI	LEU 6X	WIN	? 2015	210M	NIEMI 125

SALISBURY

The Salisbury club hosted a 200 yard score match on May 7th. The IBS editor has always felt that 200 yards was a long way to expect a rifle to shoot this early in the year, but they are not easily daunted down there in Maryland, apparently.

Varmint for score class (17 shooters), and Ted Parreco continued to be a hot gun in the spring's shooting: 1.) Ted Parreco 250-7x, 2.) Wade Polk 249-6x, 3.) Jack Lewis 249-5x, 4.) William Dempsey 249-4x, 5.) Bob McGuigan 247-7x.

Hunter class had only 4 shooters, but Ken Livengood was having a hot day himself, and darn near made it to the first 250 score ever at 200 yards. Ah, so close! 1.) Ken Livengood 249-7x, 2.) Eddie Harren 242-3x, 3.) Bill O'Rourke 236-5x.

200 yard I.B.S. Rifle Match, SALISBURY GUN CLUB, SALISBURY, MARYLAND 05/07/95

HUNTER Top 10 Equipment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
K. LIVENGOOD	308	REMINGTON	HART	PASTORLLA	PASTORELLA	BURRIS	6X	LAPUA	44.0g V144	OWN165g	210M
E. .HARREN	308	REMINGTON	SCHNEIDER	SELF	OROURKE	BURRIS	6X	FED	43.5g 4895	RUB135g	210
B. O'ROURKE	308.175	REMINGTON	SCHNEIDER	SELF	SELF	WEAVER	6X	WIN	37.0g 2015	BERGER135g	210M
F. RIDGWAY	30 DOGGIE	REMINGTON	SHILLEN	HARREN	OROURKE	BURRIS	6X	REM	37.0g 2015	RUB135g	FED

VARMINT FOR SCORE Top 10 Equipment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
T. PARRECO	6PPC	HALL	SCHILLEN	SELF	MERIDETH	PREMIER	1840X	SAKO	31.0g N135	FOWLER 63g	7.5
W. POLK	6PPC	STOLE	LILJA	KERN	KERN	LEPOULD	36X	LAPUA	29.5g V133	KERN 68g	205M
J. LEWIS	6PPC	HART	SHILLEN	KERN	KERN	PREIMER	36X	LAPUA	29.5g V133	EUBER 68g	205M
W. DEMPSEY	6PPC	DJA	SHILLEN	KERN	KERN	LEPOULD	36X	LAPUA	133	HOLLISTE 68g	FED
B. McGUIGAN	6PPC	STOLE	SHILLEN	PASTORELLA	PASTORELLA	LEPOULD	36X	LAPUA	29.0g 2015	KERN 68g	205
A. WEAVER	6PPC	GAULIN	HART	PASTORELLA	PASTORELLA	B & L	36X	SAKO	4198	WEAVER 65g	205M
B. GLASS	6PPC	PAS	LILJA	KERN	KERN	B & L	36X	LAPUA	29.0g 133	BERGER 68g	205M
J. DERBYSHIRE	6PPC	STOLE	SHILLEN	SPENCER	SPENCER	LEPOULD	36X	LAPUA	34.0g RL12	FOWLER 66g	205M
R. MURRAY	6PPC	REMINGTON	SCHNEIDER	WEIDER	WEIDER	LEUPREM	40X	NORMA	29.5g N201	FOWLER 66g	205M
M. LEWIS	6PPC	STOLE	HART	KELBY	KELBY	LEPOULD	36X	220R	28.0g 133	KERN 73g	WIN

VARMINT HUNTER Top 10 Equipment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
J. FYKES	6PPC	REMINGTON	HART	HAMMONS	HAMMONS	WEAVER	6X	220R	27.5g 322	EUBER 68g	7.5
P. MYERS	6PPC	REMINGTON	HART	PASTORELLA	PASTORELLA	BURRIS	6X	NORMA	28.0g 4198	WEAVER 63g	205M
R. LEWIS	6PPC	REMINGTON	PACNOR	KERN	KERN	WEAVER	6X	LAPUA	28.0g 322	EUBER 68g	205M
D. KERN	6PPC	REMINGTON	LILJA	SELF	SELF	WEAVER	6X	SAKO	2015	SELF 68g	7.5
A. FELDMAN	6PPC	REMINGTON	SHILLEN	FELDMAN	HAROLD	BURRIS	6X	LAPUA	27.4g 322	DJ 65g	CCIBR4

Varmint hunter class (5 shooters): 1.) Jim Fykes 243-3x, 2.) Paul Myers 242-2x, 3.) Robert Lewis 241-5x.

DUNHAM'S BAY

The April 2nd match at The Bay had 36 shooters on line for the heavy varmint class. Conditions apparently were nothing to write home about, as witness the fact that only one shooter was in the "twos" for his final aggregate.

Top five shooters were: 1.) Richard Denton .2754, 2.) Bill Niemi .3004, 3.) Ken Tenedini .3182, 4.) Bob Lembo .3216, 5.) Myles Hollister .3268.

Hunter class (7 shooters): 1.) Bill Niemi 249-10x, 2.) Francis Vahle 247-3x, 3.) Brian Niemi 246-9x.

WINTER MATCH #6, DUNHAM'S BAY FISH & GAME CLUB, LAKE GEORGE, NEW YORK 04/02/95

Heavy Varmint 100 yard Top 10 Equiment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
R. DENTON	6	Teddy	Hart	Masker	Masker	Leu	36X	Lapua	27.6g H322	Self 68g	Fed
W. NIEMI	6	Niemi	Neimi	Neimi	Neimi	Leu	36X	Sako	27.5g A2015	Neimi 68g	205M
K. TENEDINI	6	Stolle	Hart	Dixon	Dixon	Leu	36X	Lapua	28.0g N133	Euber 68g	205M
B. LEMBO	6	Stolle	Schnieder	Meyer	Masker	Leu-Pre	40X	Norma	2015	Euber 68g	CCI
M. HOLLISTER	6	Wichita	Broughton	Self	Dixon	Leu	32X	Norma	29.0g N201	Niemi 68g	205
D. CAMERON	6	Myer	Shillen	Myer	Myer	Leu	36X	Lapua	27.5g H322	Euber 68g	WSMR
D. SARGOOD	6	Wichita	McClennon	Dixon	Dixon	B&L	36X	Sako	28.0g H322	Holister 68g	205M
R. JOHNSON	6	Stolle	Hart	Masker	Greenawalt	Leu	36X	USA	26.5g H322	Holister 68g	205M
M. SICINA	6	Wichita	Niemi	Dixon	Dixon	Leu	36X	Norma	27.4g 8208	M.S. 68g	200
J. PRETTI	6	Stolle	Hart	Hollister	Masker	B&L	36X	USA	27.7g N130	Holister 68g	Win

Winter Match #6, Dunham's Bay Fish And Game Club, Lake George, New York 04/02/95

HUNTER Top 3 Equiment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
W. Niemi	30 Viper	Rem	Niemi	Niemi	Niemi	Burris	6X	Win	38.0g A2015	Niemi125g	210M
F. Vahle	6 HLS	Rem 700	HS	Dixon	Vahle	Leu	6X	R-P	34.0g H4895	Vahle 68g	Rem 9.5
B. Niemi	30 Viper	Remington	Niemi	Niemi	Niemi	Leu	6X	Win	38.0g A2015	Niemi125g	210M

DUNHAM'S BAY

Some 38 shooters contested the heavy varmint class at Dunham's Bay on April 23rd. Top ten for the day were: 1.) Don Sargood .2396, 2.) Bob Latino .2536, 3.) Lee Euber .2618, 4.) John Harrington .2694, 5.) Paul Mitchell .2707, 6.) Bill Niemi .2764, 7.) Art Binley .2772, 8.) Don Cameron .2964, 9.) Brian Hollister .3004, 10.) Bob Denton .3074.

Hunter class (10 shooters): 1.) Bill Niemi 248-13x, 2.) Rocky Murray 248-11x, 3.) Fran Vahle 245-8x, 4.) Charles Fountaine 245-3x.

WINNING EQUIPMENT (HV)

Plc	Name	Cal	Action	Barrel	Gunsmith	Stocker	Scope	Case	Powder	Primer	Bullet
1	DON SARGOOD	6	WICHITA	MCLENNON	DIXON	DIXON	B&L 36X	SAKO	28.0 H322	205M	HOLLIST. 68
2	BOB LATINO	6	STOLLE	HART	DIXON	R&M	LEU 36X	SAKO	27.5 H322	205M	EUBER 68
3	LEE EUBER	6	REM 600	BROUGHTON	HOLLISTER	R&M	LYM 30X	SAKO	27.0 N201	205M	EUBER 68
4	J. HARRINGTON	6	STOLLE	HART	DIXON	DIXON	LEU 36X	NORMA	27.7 V133	BR4	EUBER 68
5	PAUL MITCHELL	6	STOLLE	HART	DIXON	?	LEU 36X	LAPUA	28.5 GI322	205M	SELF 68
6	BILL NIEMI	6	NIEMI	NIEMI	NIEMI	NIEMI	LEU 36X	NORMA	27.5 2015	205M	NIEMI 68
7	ART BINLEY	6	STOLLE	SHILEN	DIXON	DIXON	LEU 36X	NORMA	27.6 H322	FED	HOLL 68
8	DON CAMERON	6	MEYER	SHILEN	MEYER	MEYER	LEU 36X	LAPUA	27.5 H322	REM 7.5	EUBER 68
9	B. HOLLISTER	6	UNIVERSAL	MC LENNON	HOLLISTER	DIXON	LEU 36X	SAKO	28.0 N201	205	NIEMI 68
10	BOB DENTON	6	STOLLE	HART	MASKER	MASKER	LEU 36X	LAPUA	27.7 H 322	FED	SELF 68

WINNING EQUIPMENT (HUNTER)

Plc	Name	Cal	Action	Barrel	Gunsmith	Stocker	Scope	Case	Powder	Primer	Bullet
1	BILL NIEMI	30V	REM 700	NIEMI	NIEMI	NIEMI	BUR 6X	WIN	38.0 2015	210M	NIEMI 125
2	ROCKY MURRAY	30X47	REM 700	HART	DIXON	SINCLAIR	WEA. 6X	R-P	42.0 H4895	210M	NIEMI 125
3	FRAN VAHLE	6HLS	REM 700	HS	DIXON	VAHLE	LEU 6X	R-P	34.0 H4895	REM 9.5	VAHLE 68

ERRATA

I was delighted to see my picture in the May issue of Precision Shooting (Page 99). However, the caption with the photo is not right. I did not win any 1,000 yard matches in 1994. Gary S. (Steve) Cass won a 1,000 yard match in 1994 with his 22-243 Middlestead. This feat was very well documented in the article "1000 yard Match Won ... Wth a .22 Caliber Wildcat" (Precision Shooting, January 1995, p. 81) by Henry L. Ford. I did win the heavy gun score shoot off at the NC 1000BA 4/15/95 Hawk's Ridge match with the rifle pictured. I might be the first to win an IBS sanctioned 1,000 yard match with a .224, but I was definitely not the first to win a 1,000 yard match with a .224. Thank You for your time.

Jamie C. Cass

BOWMANSTOWN

An April 30th date match at the Bowmanstown range, for the score classes.

Hunter class (14 shooters): 1.) Gary Long 250-17x, 2.) Helen Long 248-14x, 3.) Guy Green 248-7x, 4.) Richard Whiteash 247-11x, 5.) Ken Livengood 247-9x.

Heavy varmint for score (17 shooters): 1.) Bob McGuigan 250-19x, 2.) Al Weaver 250-18x, 3.) Harold Hill 250-16x, 4.) Joe Emanuele Jr. 250-15x, 5.) Gary Haldeman 250-15x.

Light varmint for score (9 shooters): 1.) Pete Frask 250-20x, 2.) Bert Rypkema 250-15x, 3.) Earl Snyder 250-13x.

Varmint hunter class (7 shooters): 1.) Paul Myers 250-11x, 2.) Rich Desimone 248-7x, 3.) David Kern 248-7x.

CLASS	COMPETITOR	CAL	ACTION	SCOPE	BARREL	GUNSMITH	LOAD	BULLET
1ST HRT.	GARY LONG	30ARK	REM	LEUPOLD	SCHNEIDER	MADEIRA	37 2015	128 CHISM
2ND HRT.	HELEN LONG	30ARK	REM	LYMAN	H&S	PASTORELLA	37 3032	RUBRIGHT125
3RD HRT.	GUY GREEN	308	REM	PECAR	SCHNEIDER	SELF	40 2015	168 SIERRA
4TH HRT.	RICH WHITEASH	30HC	REM	LEUPOLD	SCHNEIDER	KERN	37.5 2015	135 GTB
5TH HRT.	KENNY LIVENGOOD	308	REM	BURRIS	HART	PASTORELLA	41 4895	165 OWN
6TH HRT.	VINCE PASTPRELLA	308	REM	WEAVER	HART	SELF	41 4895	168 OWN
7TH HRT.	RON DERR	30-48	REM	BURRIS	HART	KERN	44.5 748	150 CHISM
8TH HRT.	BILL CREASY	30SFG	REM	LYMAN	HART	TAR-HUNT	2015	168 SIERRA
9TH HRT.	WILLIAM HEUER	308	REM	LEUPOLD	HART	J. DONHAM	38.5 4895	168 SIERRA
10TH HRT.	RANDY FRITZ	30TH	REM	WEAVER	CHANNLYN	TAR-HUNT	2015	134 TAR-HUNT
1ST HV.	BOB MCGUIGAN	6PPC	TEDDY	LEUPOLD	SHILEN	V. PASTORELLA	29 2015	68 KERN
2ND HV.	AL WEAVER	6PPC	STOLLE	B&L	HART	V. PASTORELLA	27.5 322	65 OWN
3ND HV.	HAROLD HILL	6PPC	HART	LEUPOLD	HART	V. PASTORELLA	27.5 2015	66 RUBRIGHT
4TH HV.	JOE EMANUELE JR.	6PPC	CPS	B&L	SHILEN	MEYER	28 322	66 FOWLER
5TH HV.	GARY HALDEMAN	6PPC	REM	LEUPOLD	LILJA	MADEIRA	30 322	65 BERGER
6TH HV.	DOMINICK DENATO	6PPC	REM	LEUPOLD	HART	TOTH	H-322	68 EUBER
7TH HV.	WILLIAM HEUER	25	CPS	TASCO	HART	W. WOLF	35.5 4895	87 BERGER
8TH HV.	CRAIG MADEIRA	6PPC	PAS	B&L	SCHNEIDER	MADIERA	28 322	68 WATSON
9TH HV.	WILLIAM THEIS	6PPC	CPS	LEUPOLD	SHILEN	SELF	29.6 2460	68 EUBER
10TH HV.	AL WHITEASH	6PPC	STOLLE	LEUPOLD	SCHNEIDER	KERN	27.4 H322	66 RUBRIGHT
1ST LV.	PETE FRASK	6PPC	PANDA	LEUPOLD	HART	V.PASTORELLA	27.5 322	70 VINCE
2ND LV.	BERT RYPKEMA	6PPC	STOLLE	LEUPOLD	HART			
3ND LV.	EARL SNYDER	6PPC	REM	LEUPOLD	SHILEN	TH	28 322	68 TH
4TH LV.	ROGER GOWER	6PPC	XP100	LEUPOLD	HART	BRACKNEY	28 322	66 RUBRIGHT
5TH LV.	GLEN HARLDEMAN	6PPC	X-P 100	B&L	HART	SPENCER	26 N130	65 BERGER
6TH LV.	JOSEPH EMANUELE JR	6PPC	REM	LEUPOLD	HART	GREENAWALT	27.3 322	66 FOWLER
7TH LV.	JOHN DYOTT	6PPC	HART	LEUPOLD	HART	PASTORELLA	28.5 322	68 OWN
8TH LV.	RICKY READ	6MM	REM	TASCO	REM	FACT.	44 4350	95 NOS.
9TH LV.	PAUL BIELEC	6PPC	STOLLE	LEUPOLD	SHILEN	JIM BORDEN	29.6 133	68 EUBER
10TH LV.								
1ST VH.	PAUL MYERS	6PPC	REM	BURRIS	HART	V. PASTORELLA	26 4198	63 AL
2ND VH.	RICH DESIMONE	6PPC	REM	BURRIS	SHILEN	TOTH	26 4198	63 RUBRIGHT
3ND VH.	DAVE KERN	6PPC	REM	WEAVER	LILJA	D. KERN	27.5 322	68 KERN
4TH VH.	PAUL CHACKAN	6PPC	REM	LEUPOLD	LILJA	D. KERN	27 2015	68 COYE
5TH VH.	RICHARD MILLER	6 OLE	REM	BURRIS	HART	V. PASTORELLA	2015	68 KERN
6TH VH.	PAUL CREASY	6PPC	REM	LYMAN	HART	TAR-HUNT	27.7 322	62 TAR-HUNT
7TH VH.	GUY GREEN	308	REM	BURRIS	MCLEN.	SELF	39.5 4895	168 SIERRA
8TH VH.								

04/30/95 BOWMANSTOWN ROD&GUN CLUB TOP 10 FINAL STANDINGS

ATTENTION 1000 YARD SHOOTERS !!

Official IBS 1000 Yard National Benchrest Championship
Quantico Marine Corps Base, Quantico, Virginia
September 2 & 3 1995

Six National Champions and the
Four-man Team Champions
will be crowned !!!

Score and Group winners will be determined in the Heavy gun, Light gun, and Two-gun aggregate classes. Individual awards will be presented to all top ten finishers. Over 100 prizes to be given away during this two-day match.

Two-day match fees: One class--$35 Two classes, plus two-gun aggregate--$60
Team competition: $50 per team (trophies, plus 80% team entry fees to winners)
Entry fee includes '95 Nationals patch, T-shirt, program, and registration for prizes

Practice / Sight-in period tentatively scheduled: 5:00 pm - 7:00 pm Sept. 1, 1995
Bench/Relays will be randomly assigned at 7:00 pm at Range 4 on Sept. 1, 1995
September 2 & 3 1995 Check-in begins at 8:00 am Relays begin at 9:00 am

This National championship is sanctioned by the International Benchrest Shooters association. All participants must be members of either the IBS or NBRSA.
An official membership card must be presented at the time of check-in.

Limited space -- Pre-registration requested by August 18, 1995
CALL 1-703-672-5848 TODAY !!!
All registrations must be received before bench/relay assignment on Sept. 1, 1995.

ATTENTION 1000 YARD SHOOTERS !!

DUNHAM'S BAY

The final match of the Dunham's Bay Winter League took place on April 30th. Marty Caratsole must have figured out which flag was the one to watch during his first two record matches... cause his final three groups were .161, .196 and .194. Good for beating out 41 other shooters for the day! Top 10 shooters: 1.) Marty Caratsole .2202, 2.) Dick Maretzo .2356, 3.) Don Sargood .2406, 4.) Bob Denton .2472, 5.) Mike Sicina .2524, 6.) Brian Hollister .2532, 7.) Jim Morrison .2624, 8.) Bill Niemi 2640, 9.) Gary Amatrudo .2642, 10.) Donald Cameron .2692.

Hunter class (11 shooters): 1.) Bill Niemi 250-11x, 2.) Rocky Murray 249-8x, 3.) Gary Amatrudo 248-11x, 4.) Brian Niemi 248-7x.

WINNING EQUIPMENT (HV)

Plc	Name	Cal	Action	Barrel	Gunsmith	Stocker	Scope	Case	Powder	Primer	Bullet
1	M. CARATSOLE	6	MEYER	NIEMI	HOLLISTER	MASKER	LEU 36X	LAPUA	28.5 N201	205M	HOLL. 68
2	R. MARETZO	6	HALL B	HART	BORDEN	BORDEN	B&L 36X	NORMA	28.0 H322	205M	BRUNO 65
3	DON SARGOOD	6	WICHITA	McLENNON	DIXON	DIXON	B&L 36X	SAKO	28.0 H322	205M	HOLL 68
4	BOB DENTON	6	STOLLE	HART	MASKER	MASKER	LEU 36X	LAPUA	27.7 H 322	FED	SELF 68
5	MIKE SICINA	6	WICHITA	NIEMI	DIXON	DIXON	LEU 36X	NORMA	27.4 8208	205M	NIEMI 68
6	B. HOLLISTER	6	UNIVERSAL	MC LENNON	HOLLISTER	DIXON	LEU 36X	SAKO	28.0 N201	205	NIEMI 68
7	JIM MORRISON	6	40 X	MC LENNON	DIXON	DIXON	LEU 36X	220 R	28.0 H322	205	EUBER 68
8	BILL NIEMI	6	NIEMI	NIEMI	NIEMI	NIEMI	LEU 36X	NORMA	27.5 2015	205M	NIEMI 68
9	G. AMATRUDO	6	AMATRUDO	NIEMI	AMATRUDO	NIEMI	B&L 36X	NORMA	28.0 H322	REM	NIEMI 68
10	DON CAMERON	6	MEYER	SHILEN	MEYER	MEYER	LEU 36X	LAPUA	27.5 H322	WIN	EUBER 68

WINNING EQUIPMENT (HUNTER)

Plc	Name	Cal	Action	Barrel	Gunsmith	Stocker	Scope	Case	Powder	Primer	Bullet
1	BILL NIEMI	30V	REM 700	NIEMI	NIEMI	NIEMI	BUR 6X	WIN	38.0 2015	210M	NIEMI 125
2	ROCKY MURRAY	30X47	REM 700	HART	DIXON	SINCLAIR	WEA. 6X	R-P	42.0 H4895	210M	NIEMI 125
3	G. AMATRUDO	30V	REM 700	NIEMI	NIEMI	AMATRUDO	BUR 6X	WIN	39.0 2015	FED	NIEMI 125

THE JOHN PALMISANO MEMORIAL RANGE
P.O. BOX 188 WAPWALLOPEN, PA. 18660

26th ANNUAL IBS NATIONAL GROUP CHAMPIONSHIPS

Dedicated to Ferris Pindell Benchrester Extrordinaire

August 14-19, 1995 Classes Heavy Bench, Sporter, Light & Heavy Varmint
This is a first time Nationals on The Palmisano Range. Dr. Palmisano is making every effort to make this event the **GREATEST PAY BACK BENCHREST EVENT EVER.** Many thousands will be returned to shooters in both cash and merchandise. NOT only top shooters but also the average ones will walk away with big dollar awards!

Course of fire:				
	Aug 14th	9:00AM	100Yd.	HB (10 shots)
	Aug 15th	9:00AM	200Yd.	HB (10 shots)
	Aug 16th	8:00AM	100Yd.	LV/SP
	Aug 17th	8:00AM	200Yd.	SP/LV
	Aug 18th	8:00AM	100Yd.	HV & Powder Puff
	Aug 19th	8:00AM	200Yd.	HV

Awards: Yardages, Grand Aggs, 2-Gun, 3-Gun, 4-Gun, 4 person team, HV Junior Match Pins & Top 20 Patches

REGISTRATION FEES: Nationals ONLY - $18.00 per yardage/per class
3 Gun $108.00 4 Gun $144.00 Juniors 1/2 price
Camping fee: $5/day w/elec. & $3/day without elec.

Facilities: 50+ Covered benches, large loading pavilion covered to firing line, camping, electricity, showers, rest rooms

Accommodations:
Lookout Motor Lodge Rt. 80 Exit 38, 717-788-4131
Budget Motor Inn, Rt. 80 Exit 38, 717-454-2029
Super 8 Conygham, Rt. 80, Exit 38, 717-788-5887
Econo Lodge, Rt. 80, Exit 38, 717-788-4121
Holiday Inn Hazelton, Rt. 80, Exit 38, 717-455-2061
Special Range Rate May be available from manager

Food: Breakfast and Lunch at Range Kitchen
Many fine restaurants close by incl. some 24 hr. services

Sept. 30, 8:00 PM FIRST EVER IBS Nighttime Group Match
Heavy Varmint 8:00 PM 200 yd c. 11:00 PM Light Varmint 200 yd.
The 2-Gun Agg winner is assured a RECORD as this event has never been contested before.
Pre-registration required - LIMIT 50 shooters - NO Bench rotation

Contact Bob White 201-663-5159
We Welcome your attendance and participation

Palmisano Events Pre-registration Form

($10. late fee for all registrations received after 7/14/95) Are you left handed? Y N

Send entries to:

Bob & Edna White
8 New Jersey Ave.
Lake Hopatcong, N.J. 07849

Make checks payable to: IBS

Signature______________________________
Name (print)____________________________
Street_________________________________
City__________________________________

Circle Dates: 8/14-15-16-17-18-19 9/30
Circle Classes: LV HV SP HB

Cash or Merchandise donations are sought for the Nationals

YORK

A well-attended score shoot at the York, Pa. range on April 23rd.

Hunter class (6 shooters): 1.) Frank McKee 247-8x, 2.) Eddie Harren 247-7x, 3.) Ron Derr 245-12x.

Varmint hunter class (5 shooters): 1.) K.L. Miller 250-14x, 2.) Al Feldman 248-12x, 3.) Robert Lewis 245-9x.

Varmint for score class (30 shooters): 1.) Randy Watson 250-22x, 2.) Paul Bielec 250-21x, 3.) Ted Parreco 250-20x, 4.) Barry Glass 250-19x, 5.) Sid Goodling 250-19x, 6.) Bob Green 250-18x, 7.) Robert Bollinger 250-18x, 8.) Kent Harshman 250-16x, 9.) Bud Amrhein 250-15x, 10.) Jack Lewis 250-15x. The winner shot a 6PPC, Stolle action, Shilen barrel, Leupold 36X scope, 28.0 grains of H322 with Euber 68 grain bullets and Federal primers, in a gun smithed by Bob Green.

SULPHYR SPRINGS

The Muncy, Pa. club ran five different classes in their score match of April 23rd date.

Heavy varmint for score (14 shooters): 1.) Tony Margelewicz 250-17x, 2.) Al Weaver 250-14x, 3.) Gary Haldeman 250-6x.

Light varmint for score (11 shooters): 1.) John Stahl 250-16x, 2.) Jim Borden 250-12x, 3.) Earl Snyder 250-12x.

Factory class (8 shooters): 1.) Robert Okrugly 250-7x, 2.) Glen Haldeman 250-6x, 3.) Stephen Grazaitis 248-5x. As an aside, the class winner shot a Savage .223, second place winner shot a Ruger 22 PPC, and third place winner shot a Savage .223.

Varmint hunter class (5 shooters): 1.) Erwin Shinkle 247-3x, 2.) Guy Green 246-13x, 3.) Paul J. Chalkan 243-8x.

Hunter class (10 shooters): 1.) Gary Long 250-10x, 2.) Todd Fritz 248-8x, 3.) Ken Livengood 247-12x.

UNION COUNTY

On April 16th, Easter Sunday, a certain number of individuals made the election to skip the Easter Egg Hunt, and instead headed for a 100 yard light varmint/heavy varmint class match at the Weikert, Pa. range.

Light varmint class (15 shooters): 1.) Al Skiver .3166, 2.) Mike Sicina .3248, 3.) Jerry Kronenwetter .3544. The class winner shot a 6PPC, Teddy action, Shilen barrel, B&L 36X scope, and unclear amount of V133 powder with Bob Demonstoy bullets and Federal primers. Gunsmithing was by the shooter himself.

Heavy varmint class (19 shooters): 1.) Dale Boop .2674, 2.) Bill Brawand .3414, 3.) Ed Kenzakoski .3644, The class winner shot a 6PPC, Hall action, Shilen barrel, Leupold 36X scope, 26.5 grains of H322 with MHB 68 grain bullets and Federal primers. Gunsmith was Bart Weider.

Two gun agg: 1.) Al Skiver .3564, 2.) Bill Brawand .3743, 3.) Mike Sicina .3845.

WWCCA
WINTER LEAGUE

The Western Wayne (Michigan) club hosted its final Winter League match on April 9th. After the previous four matches were fired in relatively reasonable weather conditions, the shooters were today reminded that nothing good goes on forever. "Bad things" came from all points of the compass as the Weather Gods reestablished the pecking order in Michigan.

Varmint for score class (14 shooters): 1.) Pete Kyryluk 250-11x, 2.) Jeff Haney 249-15x, 3.) Tony Sznoluch 249-15x, 4.) Jim Ray 249-9x, 5.) Len McKenzie 249-9x.

Hunter class (2 shooters): 1.) George Wood 242-9x, 2.) Paul Faunce 240-6x.

Factory class (2 shooters): 1.) Fred Eggert 241-7x, 2.) Chas. Shelansky 239-4x.

Final standings for Winter League . . .

Varmint for score class: 1.) Tony Sznoluch 1249-77x, 2.) Pete Kyryluk 1249-73x, 3.) Dana Raven 1241-56x.

Hunter class winner was Paul Faunce with a 1183-21x. And factory class was won by Fred Eggert, with a 1222-36x figure.

1995 IBS 200/300 Yard Score Championships

Where: Thurmont Conservation & Sportsmen's Club
11617 Hunt Club Road
Thurmont, MD 21788

When: 200 Yards - Saturday, August 26th, 9:00 am
300 Yards - Sunday, August 27th, 8:00 am

Classes: Hunter, Varmint Hunter, Varmint for Score

****

Cost: $35.00 for both days per class.

Club awards: 3 places each class for aggregate,
3 places each class for yardage.

I.B.S. Awards: Traveler and Keeper each class, Match pins, Aggregate & Championship patches Top 20 (10 in Hunter & Varmint Hunter).

Preregister to: Dick Grosbier, 10220 Allview Drive, Frederick, MD 21701.
Make checks payable to Thurmont Conservation & Sportsman's Club Inc.

For information contact Dick Grosbier (301) 898-5461
or Carl Baker (410) 775-0210.

Special Notice: A maximum of 60 contestants can be handled, therefore preregistration will be handled on a first come first served basis (based on postmark). All preregistration is by mail only. Each contestant may compete in one class, competition in a second class will be allowed on a space available basis only.

Plenty of Camping with hookups will be available at the club.
A nominal fee is charged for electricity.

Food will be available on the premises,
also showers, swimming pool, fishing, etc.

Club will be open on Friday August 25th for Contestants and their families.

Nearby motels:	Super 8	Thurmont, MD	800-800-8000
	Cozy Inn	Thurmont, MD	301-271-4301

Many motels in Frederick, MD

INTERNATIONAL BENCHREST SHOOTERS APPLICATION

NAME____

ADDRESS____

CITY______________________ STATE______________ ZIP__________

****

( ) IBS Membership and PS 1 Year in USA – $35/Yr.

( ) Associate Membership – Must live in same household as another IBS Member – receives no magazine – $5/Yr.

( ) Junior Member – 17 and under – no magazine – $5/Yr.

( ) 1 Year Membership and PS outside USA – $47.50 in US Funds.

( ) 1 Year Membership and PS Airmail outside USA – $65 in US Funds.

( ) Club Membership – 1 Year with PS $35/Yr. in US
$47.50/Yr. outside US
$65/Yr. Airmail

MAIL MEMBERSHIPS TO: JOAN BORDEN, RR 1 BOX 250 BB, SPRINGVILLE, PA 18844

Make checks payable to: **IBS**

CHECKS MUST BE DRAWN ON US BANK OR THEY WILL BE RETURNED

( ) USA/CANADA Life Member – $500.

( ) Overseas Surface Life Member – $750.

( ) Overseas Airmail Life Member – $1000.

ORRINGTON

A score match at the Orrington, Maine range on April 23rd.

Hunter class (5 shooters): 1.) Dwight Furrow 245-11x, 2.) Orland Bunker 244-8x, 3.) Robert Soohey 241-3x.

Varmint hunter class (7 shooters): 1.) Donna Furrow 249-13x, 2.) Ivan Wentworth 248-9x, 3.) Phil Prescott 247-7x.

Varmint for score class (9 shooters): 1.) Bob Soohey 248-14x, 2.) Jim Goody 248-10x, 3.) Blaine Johnson 247-7x.

INTERNATIONAL
BENCHREST SHOOTERS

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IBS SCORE SCHEDULE 1995

DATE	NAME	CLUB	YARDS	TIME	CLASSES
Jul 2		SALISBURY, MD	100 YDS	11:00 AM	HTR,VH,VFS
Jul 8		THURMONT, MD	100/200	8:00 AM	HTR,VH,VFS
Jul 9		THURMONT, MD	300 YDS	9:00 AM	HTR,VH,VFS
Jul 9		ORRINGTON, ME	200 YDS	9:00 AM	HTR,VH,VFS
Jul 15	**TCL**	FLORIDA BENCHREST	100 YDS	9:00 AM	HTR
Jul 16		BOWMANSTOWN, PA	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Jul 16		WWCCA, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Jul 16		YORK, PA	100 YDS	10:00 AM	HTR,VH,VFS
Jul 22	**MAINE STATES**	CAPITOL CITY, ME	100 YDS	9:00 AM	HTR,VH,VFS
Jul 22		HARRISON, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Jul 23	**MAINE STATES**	CAPITOL CITY, ME	200 YDS	9:00 AM	HTR,VH,VFS
Jul 23		SULPHYR SPRINGS, PA	100 YDS	10:00 AM	HTR,VH,VFS
Jul 29	**PA STATES**	MAINVILLE, PA	100 YDS	10:00 AM	HTR,VH,VFS
Jul 30	**PA STATES**	MAINVILLE, PA	200 YDS	9:00 AM	HTR,VH,VFS
Aug 6		SALISBURY, MD	100 YDS	11:00 AM	HTR,VH,VFS
Aug 6		BOWMANSTOWN, PA	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Aug 12		HARRISON, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Aug 13		YORK, PA	200 YDS	10:00 AM	HTR,VH,VFS
Aug 13		CAPITOL CITY, ME	100 YDS	9:00 AM	HTR,VH,VFS
Aug 13		MAINVILLE, PA	100 YDS	10:00 AM	HTR,VH,VFS
Aug 19	**TCL**	FLORIDA BENCHREST	100 YDS	9:00 AM	HTR
Aug 20		WWCCA, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Aug 20		BOWMANSTOWN, PA	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Aug 26	**IBS 200/300 CHAMP.**	THURMONT, MD	200 YDS	8:00 AM	HTR,VH,VFS
Aug 26		HARRISON, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Aug 27	**IBS 200/300 CHAMP.**	THURMONT, MD	300 YDS	8:00 AM	HTR,VH,VFS
Aug. 27	**MICHIGAN STATES**	HARRISON, MI	100 YDS	9:00 AM	HTR,VH,VFS
Sep 3		CAPITOL CITY, ME	200 YDS	9:00 AM	HTR,VH,VFS
Sep 3		SALISBURY, MD	200 YDS	11:00 AM	HTR,VH,VFS
Sep 9		HARRISON, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Sep 10		WWCCA, MI	200 YDS	10:00 AM	HTR,VH,VFS,FAC
Sep 10		YORK, PA	100 YDS	10:00 AM	HTR,VH,VFS
Sep 10		SULPHYR SPRINGS, PA	100 YDS	10:00 AM	HTR,VH,VFS
Sep 10		ORRINGTON, ME	100 YDS	9:00 AM	HTR,VH,VFS
Sep 16		WWCCA, MI	200 YDS	10:00 AM	HTR,VH,VFS,FAC
Sep 16	**IBS NATIONALS**	UNION COUNTY, PA	100 YDS	9:00 AM	HTR,VH,VFS
Sep 17	**MICHIGAN STATES**	WWCCA, MI	200 YDS	10:00 AM	HTR,VH,VFS,FAC
Sep 17	**IBS NATIONALS**	UNION COUNTY, PA	200 YDS	9:00 AM	HTR,VH,VFS
Sep 23		HARRISON, MI	100 YDS	10:00 AM	HTR,VH,VFS
Sep 24		DUNHAMS BAY, NY	100 YDS	11:00 AM	HTR
Sep 24		CAPITOL CITY, ME	100 YDS	9:00 AM	HTR,VH,VFS
Sep 24		THURMONT, MD	100 YDS	11:00 AM	HTR,VH,VFS
Sep 30	**MD STATES**	SALISBURY, MD	100 YDS	10:00 AM	HTR,VH,VFS
Oct 1	**MD STATES**	SALISBURY, MD	200 YDS	9:00 AM	HTR,VH,VFS
Oct 8		SULPHYR SPRINGS, PA	100 YDS	10:00 AM	HTR,VH,VFS
Oct 8		ORRINGTON, ME	100 YDS	9:00 AM	HTR,VH,VFS
Oct 15		WWCCA, MI	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Oct 15		YORK, PA	100 YDS	10:00 AM	HTR,VH,VFS
Oct 15		CAPITOL CITY, ME	100 YDS	9:00 AM	HTR,VH,VFS
Oct 22		MAINVILLE, PA	100 YDS	10:00 AM	HTR,VH,VFS,FAC
Oct 29		THURMONT, MD	300 YDS	11:00 AM	HTR,VH,VFS
Nov 5		SALISBURY, MD	100 YDS	11:00 AM	HTR,VH,VFS
Nov 12		MAINVILLE, PA	100 YDS	10:00 AM	HTR,VH,VFS

IBS GROUP SCHEDULE 1995

DATE	NAME	CLUB	YARDS	TIME	CLASSES
Jul 1		SOUTH CREEK	100 YDS	8:00 AM	LV-HV
Jul 2		SOUTH CREEK	200 YDS	8:00 AM	LV-HV
Jul 15	NY CHAMPIONSHIP	CAMILLUS, NY	100 YDS	8:00 AM	HV,LV,HB
Jul 16	NY CHAMPIONSHIP	CAMILLUS, NY	200 YDS	8:00 AM	HV,LV,HB
Jul 22		DUNHAMS BAY, NY	100 YDS	9:00 AM	LV,HV
Jul 23		DUNHAMS BAY, NY	200 YDS	9:00 AM	LV,HV
Aug 5	PA STATES	UNION COUNTY, PA	100 YDS	9:00 AM	LV,HV
Aug 6	PA STATES	UNION COUNTY, PA	200 YDS	8:00 AM	LV,HV
Aug 14	IBS GROUP NATIONALS	WAPWALLOPEN, PA	100 YDS	9:00 AM	HB
Aug 15	IBS GROUP NATIONALS	WAPWALLOPEN, PA	200 YDS	9:00 AM	HB
Aug 16	IBS GROUP NATIONALS	WAPWALLOPEN, PA	100 YDS	8:00 AM	SP/LV
Aug 17	IBS GROUP NATIONALS	WAPWALLOPEN, PA	200 YDS	8:00 AM	SP/LV
Aug 18	IBS GROUP NATIONALS	WAPWALLOPEN, PA	100 YDS	9:00 AM	HV
Aug 19	IBS GROUP NATIONALS	WAPWALLOPEN, PA	200 YDS	8:00 AM	HV
Sep 16		FLORIDA BENCHREST	100 YDS	9:00 AM	LV,HV
Sep 24		DUNHAMS BAY, NY	100 YDS	11:00 AM	HV
Sep 30	PALMISANO NIGHT SHOOT	WAPWALLOPEN, PA	200 YDS	8:00 PM	LV,HV
Oct. 21		FLORIDA BENCHREST	100 YDS	9:00 AM	LV,HV
Nov 18		FLORIDA BENCHREST	100 YDS	9:00 AM	LV,HV

SALISBURY

On April 1st and 2nd the Salisbury, Maryland club hosted a 100 and 200 yard score match. The conditions for the 200 yard stage on Sunday were described as "sporting", which is a polite way of saying that it was a real (censored) out there.

Varmint for score class (22 shooters) 100 yards: 1.) Barry Tubbs 250-18x, 2.) William Dempsey 250-15x, 3.) Ted Parreco 250-14x, 4.) Bob McGuigan 250-13x, 5.) Marshall Lewis 250-12x. At 200 yards: 1.) Bob McGuigan 247-9x, 2.) Dick Grosbier 246-1x, 3.) Randy Watson 245-5x, 4.) William Dempsey 245-4x, 5.) George Rogers 245-3x. Grand agg: 1.) Bob McGuigan 497-22x, 2.) William Dempsey 495-19x, 3.) Dick Grosbier 495-16x, 4.) George Rogers 495-14x, 5.) Paul Chackan 495-13x.

Varmint hunter class (6 shooters) 100 yards: 1.) Donna Furrow 250-13x, 2.) Al Feldman 250-12x, 3.) Paul Myers 249-8x. At 200 yards: 1.) Al Feldman 245-6x, 2.) Dave Kern 244-7x, 3.) Paul Myers 241-3x. Grand agg: 1.) Al Feldman 495-18x, 2.) Dave Kern 491-15x, 3.) Donna Furrow 490-13x.

Hunter class (7 shooters) 100 yards: 1.) Ronald Derr 247-9x, 2.) Dwight Furrow 246-15x, 3.) Kenneth Bell 246-8x. At 200 yards: 1.) Ken Livengood 244-5x, 2.) Dwight Furrow 244-5x, 3.) Fred Ridgway 236-5x. Grand agg: 1.) Dwight Furrow 490-20x, 2.) Ken Livengood 489-14x, 3.) Eddie Harren 475-10x.

200 + 100 yard I.B.S. Rifle Match, SALISBURY GUN CLUB, SALISBURY, MARYLAND 04/01/95 to 04/02/95

HUNTER Top 10 Equipment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
D. FURROW	30-06CP	REMINGTON	HART	HART	FURROW	HART	6X	REM	43.0g 748	SPEER130g	REM
K. LIVENGOOD	308	REMINGTON	HART	PASTORELLA	PASTORELLA	BURRIS	6X	LAPUA	41.0g 4895	SERRA168g	210
E. HARREN	30DOGGIE	REMINGTON	SCHNEIDER	SELF	SELF	BURRIS	6X	EUBER	40.0g H4895	RUB135g	205M
F. RIDGWAY	30DOGGIE	REMINGTON	SHILEN	HARREN	OROUKE	BURRIS	6X	REM	37.0g 2015	RUB135g	FED
R. DERR	30X48	REMINGTON	HARD	WIEDER	WIEDER	LEUPOLD	6X	LAPUA	44.5g 748	CHISM150g	REMINGTO
C. BAKER	25X44	REMINGTON	HART	GOODLING	GOODLING	WEAVER	6X	REM	37.0g 4895	DJ 83g	REMINGTO
K. BELL	308	REMINGTON	HART	JARRETT	JARRETT	BURRIS	6X	RWS	46.0g 135	LOUIS135g	RWS

VARMINT FOR SCORE Top 10 Equipment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
B. McGUIGAN	6PPC	TEDDY	SHILEN	PASTORELLA	PASTORELLA	LEUPOLD	36X	SAKO	29.0g 2015	KERN 68g	205M
W. DEMPSEY	6PPC	HART	SHILEN	KERN	KERN	LEUPOLD	36X	LAPUA	29.4g N201	EUBER 68g	205M
D. GROSBIER	6PPC	STOLE	SHILEN	SELF	MERIDTH	LEU-PREM	18-40X	NORMA	29.0g N201	FOWLER 65g	FED
G. ROGERS	6PPC	PAS	SCHNEIDER	BURHMAN	AP	LEUPOLD	36X	SAKO	27.7g 133	EUBER 68g	BR4
P. CHACKAN	6PPC	STOLE	LILJA	KERN	KERN	LEUPOLD	40X	LAPUA	27.0g 2015	COYE 68g	205
J. LEWIS	6PPC	HART	LILJA	KERN	KERN	LEU-PREM	36X	LAPUA	29.5g V133	KERN 68g	F205M
T. PARRECO	NA	NA	NA	NA	NA	NA	X	NA		NA	NA
R. WATSON	6PPC	STOLE	SHILEN	BOB GREEN	NA	LEUPOLD	36X	USA	28.0g H322	EUBER 68g	205M
A. WEAVER	6PPC	GAULIN	GILLARD	PASTORELLA	PASTORELLA	B & L	36X	NORMA	28.0g GI322	WEAVER 66g	205M
W. POLK	6PPC	STOLE	LILJA	KERN	KERN	LEUPOLD	36X	LAPUA	29.5g V133	KERN 68g	205M

VARMINT HUNTER Top 10 Equipment List

name	caliber	action	barrel	gunsmith	stocker	scope	power	case	load	bullet	primer
A. FELDMAN	6PPC	REMINGTON	SHILEN	SELF	HEROLD	BURRIS	6X	LAPUA	24.7g H322	DJ 66g	CCIBR4
D. KERN	6PPC	REMINGTON	LILJA	KERN	KERN	WEAVER	6X	LAPUA	2015	KERN 68g	REM7.5
D. FURROW	6PPC	REMINGTON	HART	HART	FURROW	WEAVER	6X	SAKO	27.5g H322	WATSON 68g	FED
P. MYERS	6PPC	REMINGTON	HART	PASTORELLA	PASTORELLA	BURRIS	6X	NORMA	28.0g 4198	NOZLER 70g	205M
M [illegible] FURROW	6PPC	REMINGTON	HART	HART	FURROW	WEAVER	6X	SAKO	27.5g H322	WATSON 68g	FEDERAL
C. YINGLING	6PPC	REMINGTON	SCHNEIDER	GOODLING		BURRIS	6X	USA	133		205M

TARGETS

Target No.	Target Description	Quantity	Total Weight	List Price per 100
IBS/B/1	100 YD Benchrest — Black 8x15½	500	15	7.50
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IBS/B/3	300 YD Benchrest — Red 12x33½	250	19	22.75
IBS/H/1	100 YD Hunter — Black 12x19	250	14	11.25
IBS/H/2	200 YD Hunter — Black 13x21	250	15	11.25
IBS/H/3	300 YD Hunter — Black 13x26	250	22	26.50

Prices are PER HUNDRED TARGETS
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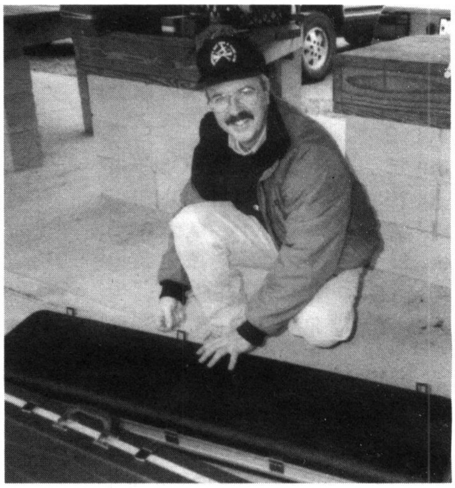
1995
DUNHAM'S BAY WINTER LEAGUE
HEAVY VARMINT CLASS

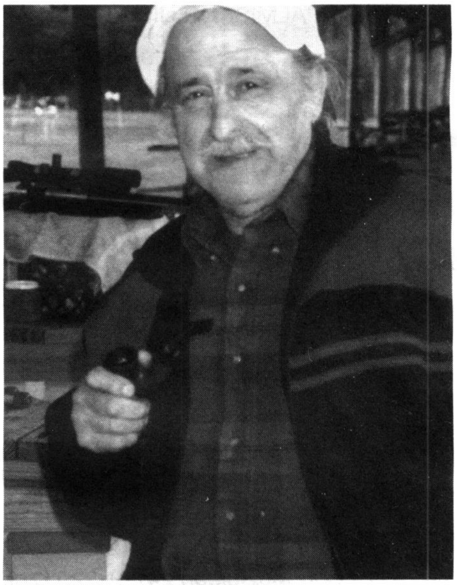
1	BOB LATINO	.2468
2	BILL NIEMI	.2543
3	DON SARGOOD	.2570
4	PAUL MITCHELL	.2634
5	JOHN HARRINGTON	.2936
6	MARTY CARATSOLE	.2954
7	MYLES HOLLISTER	.2967
8	JIM GREENE	.2986
9	JIM MORRISON	.3011
10	TOM SVACK	.3068
11	LEE EUBER	.3084
12	EARL McFARLAND	.3100
13	ROBERT LEMBO	.3145
14	DOUG VAN WIE	.3198
15	JAKE HARRIS	.3202
16	SANDRA SORIANO	.3253
17	BRIAN NIEMI	.3352
18	DON CAMERON	.3381
19	TOM MILLER	.3387
20	PAUL DION	.3406



1992 Rookie of the Year Jim Pretti packing up to go home.

WINTER LEAGUE - HUNTER CLASS

1	BILL NIEMI	1245	55X
2	BRIAN NIEMI	1242	44X
3	IRA FARNSWORTH	1229	44X
4	FRANCIS VAHLE	1226	30X
5	SCOTT HAHN	1220	43X



Benchrest "Legend" Joe Vinci.

THURMONT

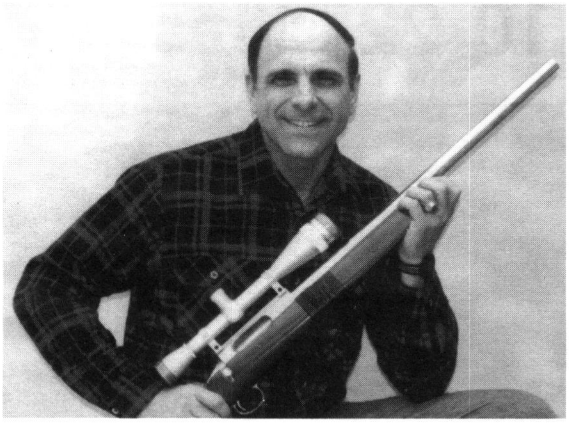
Ted Parreco beat out 20 other shooters in the varmint for score class on April 30th, riding a 250-21x score to the winner's circle. He was followed by: 2.) Robert Bollinger 250-19x, 3.) Kent Harshman 250-16x, 4.) Bob Green 250-15x, 5.) Jack Lewis 250-13x. Mr. Parreco employed a 6PPC, Hall action, Shilen barrel, Leupold-Premier 18X40X, 31.0 grains of N135 powder with Fowler 68 grain bullets and Remington 7 1/2 primers, in a gun smithed by himself, and stocked by Tom Meredith.

Varmint hunter class (4 shooters): 1.) K.L. Miller 249-10x, 2.) Al Feldman 248-11x, 3.) Robert Lewis 247-9x.

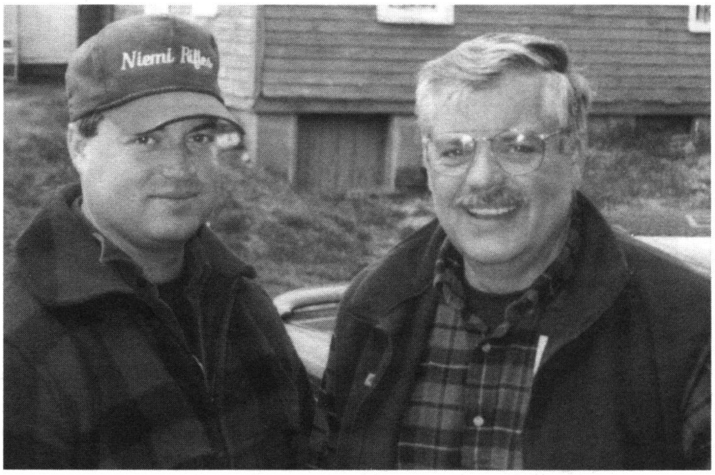
Hunter class (2 shooters): 1.) Carl Baker 247-4x, 2.) Fred Ridgway 246-9x.

IBS 1,000 YD SCHEDULE 1995

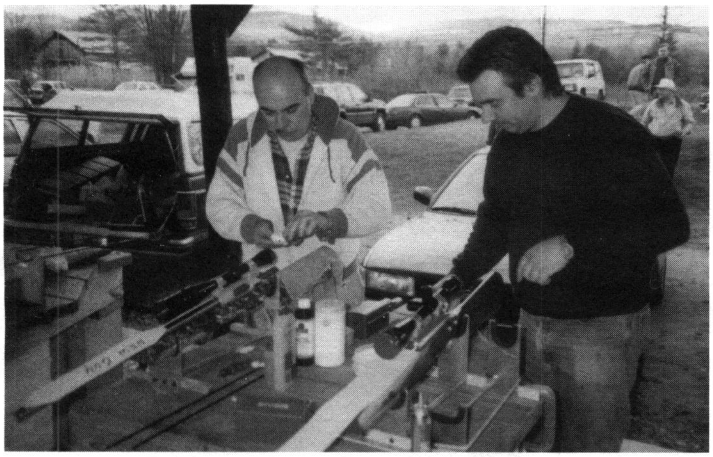
DATE	NAME / CLUB	TIME	CLASSES
Jul 1	VA 1,000 YD BENCHREST CLUB	11:00 AM	LIGHT/HEAVY GUN
Jul 2	VA 1,000 YD BENCHREST CLUB	9:00 AM	LIGHT/HEAVY GUN
Jul 15	NC 1,000 BENCHREST ASSN.	10:00 AM	LIGHT/HEAVY GUN
Aug 12	VA 1,000 YD BENCHREST CLUB	11:00 AM	LIGHT/HEAVY GUN
Aug 13	VA 1,000 YD BENCHREST CLUB	9:00 AM	LIGHT/HEAVY GUN
Aug 19	NC 1,000 BENCHREST ASSN.	10:00 AM	LIGHT/HEAVY GUN
Sep 2	**IBS NATIONALS** VA 1,000 YD BENCHREST CLUB	11:00 AM	LIGHT/HEAVY GUN
Sep 3	**IBS NATIONALS** VA 1,000 YD BENCHREST CLUB	9:00 AM	LIGHT/HEAVY GUN
Sep 16	NC 1,000 BENCHREST ASSN.	10:00 AM	LIGHT/HEAVY GUN
Oct 21	NC 1,000 BENCHREST ASSN.	10:00 AM	LIGHT/HEAVY GUN
Nov 18	NC 1,000 BENCHREST ASSN.	10:00 AM	LIGHT/HEAVY GUN
Dec 16	NC 1,000 BENCHREST ASSN.	10:00 AM	LIGHT/HEAVY GUN



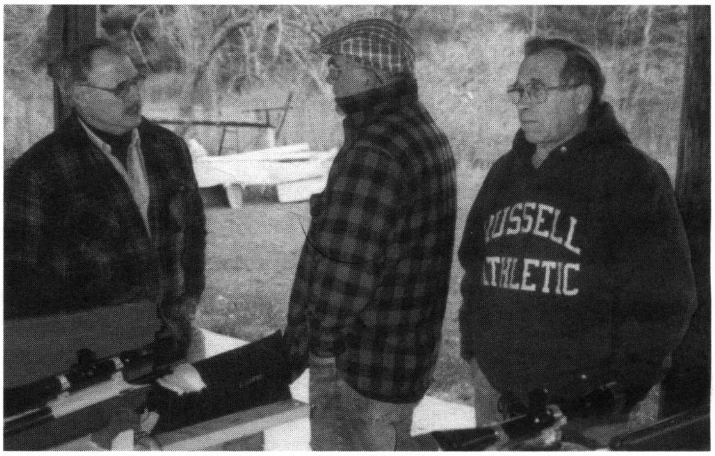
Bob Latino, 1995 Dunham's Bay Winter League heavy varmint champion. Stolle Panda, Hart barrel; Gunsmith - Norman Dixon; Stocker - Bob Adamowicz (R&M Kevlar stock). Note "High Tech" weight system: 3 pounds of lead duct taped and Velcroed® on underside of stock. Paul Dion photo.



Father and Son: Brian Niemi (left and Bill Niemi (right). Bill, winner hunter class at Duham's Bay Winter League, second in heavy varmint. Brian second place hunter class.



Howie Levy (left) and Mike Soriano (right) cleaning between relays.



Left to right: Lee Euber, "Rookie" Tom Kenyon, and Richard Denton.

FLORIDA

April 15th, hunter class, four shooters: 1.) Geoff Pearson 245-6x, 2.) Tony Heeb 240-6x, 3.) Jim Hinson 239-9x.

May 20th, hunter class, eight shooters: 1.) Bill Verdries 247-9x, 2.) Jim Hinson 245-9x, 3.) Al Tiechner 241-3x.

IBS INTERNATIONAL SCHEDULE 1995

DATE	NAME	CLUB	YARDS	CLASSES
June 10	Midsummer	Reykjavik	100 Meters	HV,SP
July 15-16	Reykjavik Champs.	Reykjavik	100,200,300	HV,SP
Aug. 12	Hallgrimsson Memorial	Reykjavik	200,300	HV,SP
Sept. 9-10	Icelandic Champs.	Reykjavik	100,200,300	HV,SP

YORK

The Izaak Walton League club got off to an early start for 1995 with a three classes score match at the York, Pa. range on March 26th.

Hunter class (7 shooters): 1.) Eddie Harren 250-13x, 2.) Frank McKee 250-10x, 3.) Vince Pastorella 246-9x.

Varmint hunter class (6 shooters): 1.) Paul Myers 248-12x, 2.) Dave Kern 244-6x, 3.) Al Feldman 239-6x.

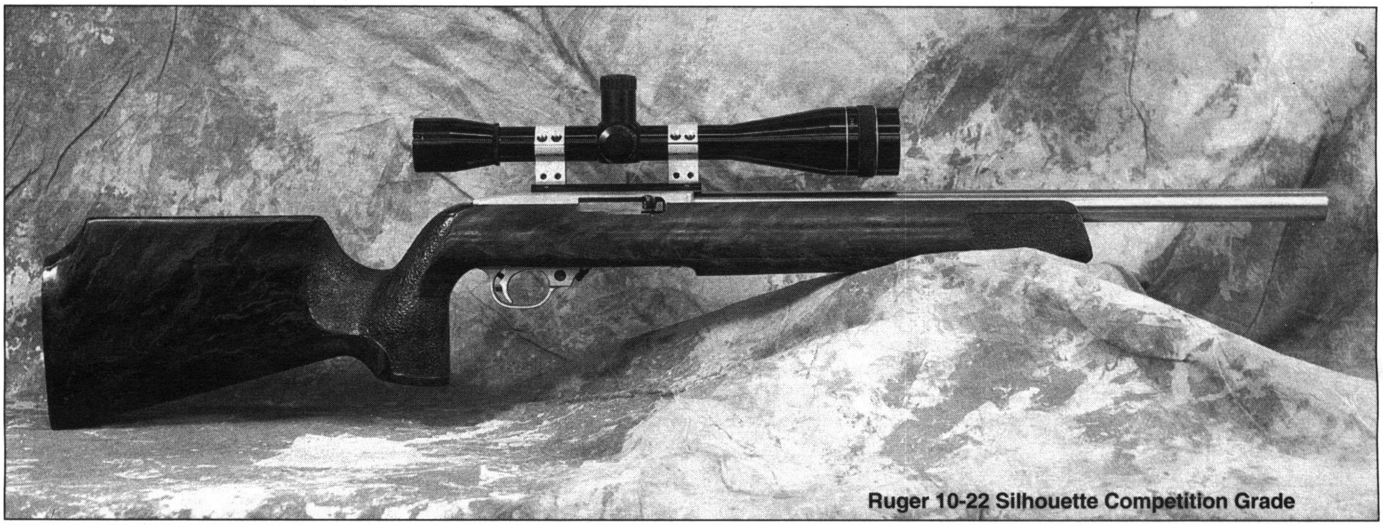
Varmint for score (26 shooters): 1.) Pete Frask 250-20x, 2.) Bob Green 250-18x, 3.) Randy Watson 250-17x, 4.) Paul Bielec 250-17x, 5.) Sid Goodling 250-17x.

YORK — WINNING EQUIPMENT

VARMINT FOR SCORE

Name	Caliber	Action	Barrel	Gunsmith	Scope	Load	Bullet
Frask	6PPC	Teddy	Hart	Pastorella	Leu. 36	27.5-H322	VP
Green	6PPC	CPS	Hart	Green	Leu. 40	28.0-V133	Watson
Watson	6PPC	Stolle	Shilen	Green	Leu. 36	28.0-H322	Euber
Bielec	6PPC	Stolle	Shilen	Borden	Leu. 40	29.2-V133	Euber
Goodling	6PPC	Stolle	Hart	Goodling	Leu. 36	28.6-H322	Euber

Modified Ruger 10-22 Rifles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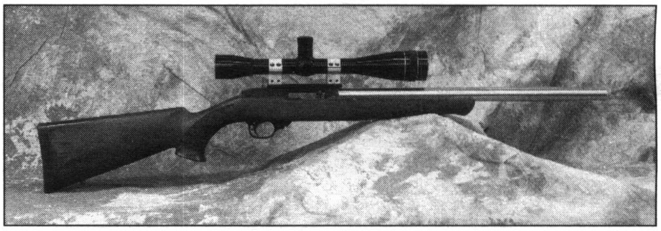
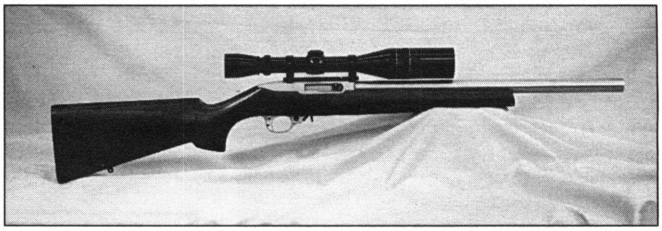
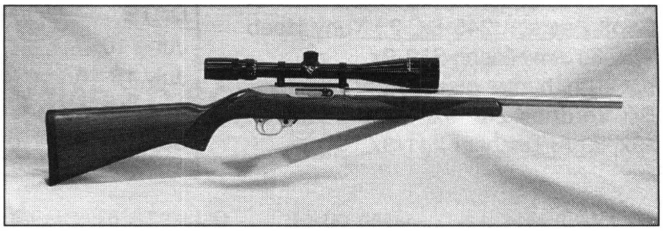

Ruger 10-22 With Butler Creek Synthetic Stock


Ruger 10-22 with Molded Fiberglass Stock**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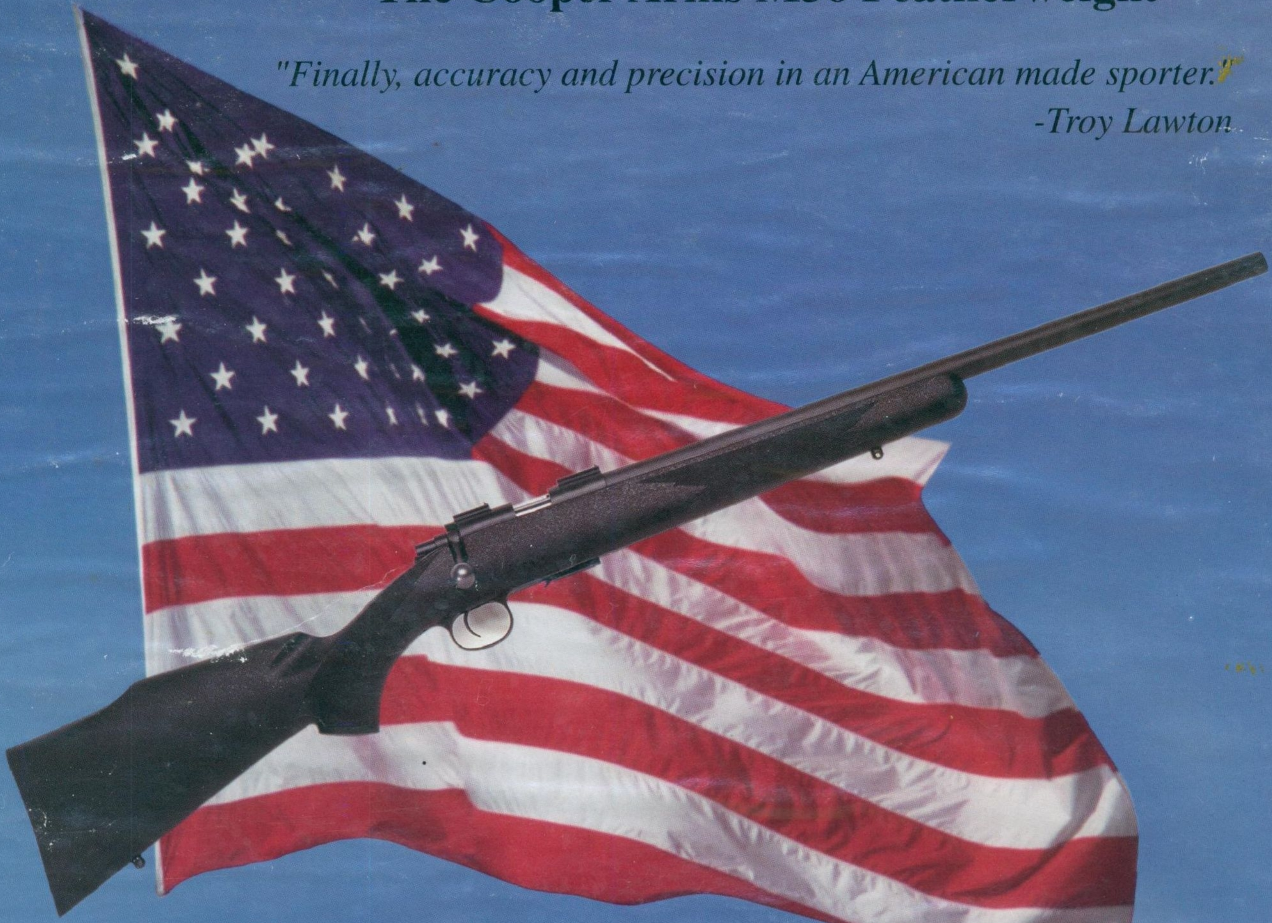
-Troy Lawton



Two years on the market, the Cooper Arms Featherweight is turning heads on the silhouette circuit with its performance...time after time. Quality with innovation the American way...

Specifications

Caliber	**22LR**
Action	**Cooper 3 mid-locking lug bolt action repeater, glass bedded**
Trigger	**2 lb. set from the factory**
Barrel	**23 3/4" chrome moly match, .960 - .650 taper, free floated**
Stock	**McMillan Sporter in textured black finish**
Weight	**6.5 lbs.**

1994 Championships Won with the Cooper M36 Featherweight

US National Open Rifle	**Troy Lawton**
Canadian National Hunter Rifle	**William Zander**
Texas State Hunter, Standard & Open Rifle	**Troy Lawton**

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Cooper Arms

McLemore Sporting Arms
(318) 435-9081